DOCUMENT RESUME

ED 165 890 PS 010 350

AUTHOR	Hull, Bill
TITLE	Teachers' Seminars on Children's Thinking: A Progress Report.
INSTITUTION	North Dakota Study Group on Evaluation, Grand Forks.
SPONS AGENCY	Rockefeller Bros. Fund, New York, N.Y.
PUB DATE	Apr 78
NOTE	63p.
AVAILABLE FROM	North Dakota Study Group, Box 8039, University of North Dakota, Grand Forks, North Dakota 58202 ($2.00, plus $0.50 handling charge)
EDRS PRICE	MF-$0.83 HC-$3.50 Plus Postage.
DESCRIPTORS	*Children; Evaluation; Group Dynamics; Group Structure; Observation; *Organization; *Program Development; Recall (Psychological); *Research Methodology; *Teacher Seminars; *Thought Processes

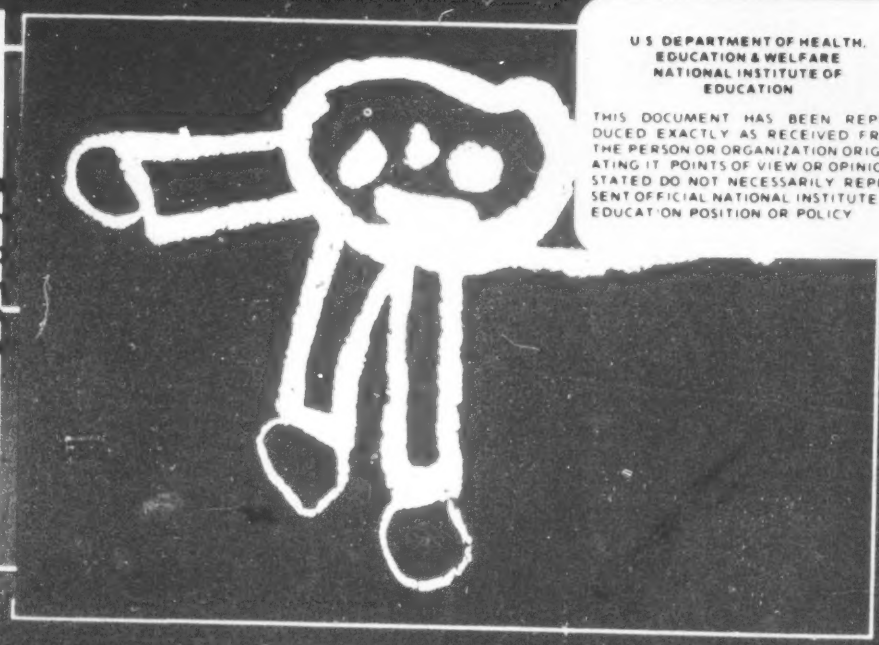
ABSTRACT

This monograph, one of a series initiated by the North Dakota Study Group on Evaluation, describes the background and workings of a set of seminars in which experienced teachers from different schools meet regularly to study children's thinking. Anecdotal accounts from seminar discussions are utilized extensively throughout. Chapter I examines the role of observation and recall in the seminar, describing how teachers train themselves to recall what happens in their own classrooms and emphasizing the importance of sharing teachers' observations and recording their discussions. The development of the seminar structure and process is traced in Chapter II, and basic assumptions about learning, teachers, respecting children, continuity, and research are examined in Chapter III. Chapter IV discusses evaluation within the context of the seminar, and Chapter V projects future seminar developments which may become possible as more seminars are instituted. (JMB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

North Dakota Study Group on Evaluation

ED165890



U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

Bill Hull

TEACHERS' SEMINARS ON CHILDREN'S THINKING

A Progress Report

PS 010350

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

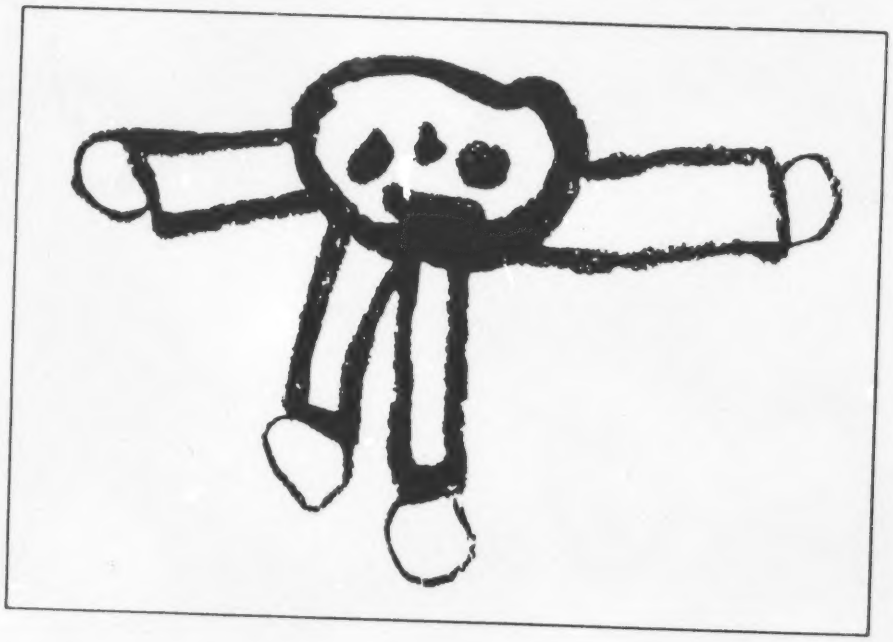
William P. Hull

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

2

North Dakota Study Group on Evaluation

PS 010350



Bill Hull

TEACHERS' SEMINARS ON CHILDREN'S THINKING

A Progress Report

University of North Dakota
Grand Forks, N.D. 58202
April 1978

Copyright © 1978 by Bill Hull

First published in 1978

North Dakota Study Group
on Evaluation, c/o Vito Perrone,
Center for Teaching & Learning
University of North Dakota
Grand Forks, N.D. 58201

Library of Congress Catalogue
Card Number: 78-52231

Printed by University of
North Dakota Press

A grant from the Rockefeller Brothers Fund
makes possible publication of this series

Editor: Arthur Tobier

In November 1972, educators from several parts of the United States met at the University of North Dakota to discuss some common concerns about the narrow accountability ethos that had begun to dominate schools and to share what many believed to be more sensible means of both documenting and assessing children's learning. Subsequent meetings, much sharing of evaluation information, and financial and moral support from the Rockefeller Brothers Fund have all contributed to keeping together what is now called the North Dakota Study Group on Evaluation. A major goal of the Study Group, beyond support for individual participants and programs, is to provide materials for teachers, parents, school administrators and governmental decision-makers (within State Education Agencies and the U.S. Office of Education) that might encourage re-examination of a range of evaluation issues and perspectives about schools and schooling.

Towards this end, the Study Group has initiated a continuing series of monographs, of which this paper is one. Over time, the series will include material on, among other things, children's thinking, children's language, teacher support systems, inservice training, the school's relationship to the larger community. The intent is that these papers be taken not as final statements--a new ideology, but as working papers, written by people who are acting on, not just thinking about, these problems, whose implications need an active and considered response.

Vito Perrone, Dean
Center for Teaching & Learning,
University of North Dakota

Contents

	Introduction	1
1	Observation and Recall	5
2	The Seminar Structure and Process	16
3	Assumptions	35
4	Evaluation	42
5	Projections	49

Introduction

In the fall of 1971, a brief announcement was included in the list of workshops sent out by the Greater Boston Teachers' Center proposing that a seminar of experienced teachers be formed to study children's thinking in the classroom by sharing specific instances provided by the teachers. My purpose in offering to organize this first seminar along with the other six-week workshops was to see if it would be possible to interest a few particularly able teachers in making a long-range study of children's thinking in their own classrooms. A series of such seminars, I felt, might provide the means for identifying and recruiting a research team of teachers who would be prepared to continue this investigation over a period of years, teachers who already had the right to innovate in their own classrooms and who would be willing to share the results of their inquiries with people who had similar interests.

Thirty people registered for the first seminar; we signed up the first ten who applied and set up a waiting list. Several teachers in that first group of ten had been teaching for only a few years. Normally, I would not have chosen them for a research team because of their lack of experience. Their contributions were so valuable, however, and the diversity of the group so stimulating, that there was never any need to stop at the end of six weeks. The original seminar has continued now for six years, with vacancies being filled by nomination from its members, while other seminars have been started, four of them by members of the original group. Former members continue to keep in touch with each other through written materials and occasional meetings.

What we do sounds deceptively simple: teachers meet and talk about specific instances of children's thinking from their own classrooms. Our meetings are casual, informal, often playful, but they have been guided by a definite set of constraints and expectations growing out of a number of years of thinking about what happens in classrooms. And it would be misleading to suggest that it is likely that teachers meeting to talk about children's thinking would automatically be productive. It already sounds quite different when we say that *experienced teachers* from *different schools* have been training themselves *to recall* what happens in their own classrooms, that they have shared their observations,

Bill Hull is a former teacher who continues to have a strong interest in the study of thinking.

and that a *record* has been kept of these discussions for a period of *years*.

BASIC CONDITIONS OF OPERATIONS

Experienced teachers. The original idea was to find outstanding teachers who were already expert practitioners, but who still had a strong curiosity about mental functioning, their own and that of their children. Selection has never been a problem. Around Boston, there seem to be many teachers who are interested in working in this way. It has worked quite well for the groups to be self-selecting. One continuing problem, however, is that many teachers underestimate what they know and the contribution which they could make. Some very able and talented teachers have very little confidence in their ability to talk about what they are doing and little perspective concerning their own expertise. It has not seemed any disadvantage to have a wide range in the length of experience within a single group. Perhaps the quality of experience and the ability to grow are far more important. The ability to experience freshly and accurately is what seems to count for the most.

Different schools. A firm rule in the beginning was that no two teachers in a seminar could be from the same school. Though we are now breaking the rule in a few cases, I believe the success of the first groups depended in part upon this constraint. There are many things which could be said about this requirement. The differences in the kinds of schools represented, in the setting, and in the background and ages of children in the different classrooms have forced us all to be more explicit about factors which we might otherwise assume we understood, and take for granted. A rather different reason is that people must feel free to speak freely and speculatively and the trust which is necessary can grow more easily when particular political or organizational concerns are kept in the background and not allowed to intrude. It was also easier for us to be speculative and forthright when we could focus on what was *presented* rather than what was jointly experienced. The latter would often require an immediate adjustment in perception which could be limiting in the early stages.

Recall. Our prime resource, of specific instances, derives from the ability to recall significant events which occur in the course of the day's experience with children. This is quite different, I believe, from asking the teacher to become an observer in his/her own classroom. There are ways of developing the ability to recall what has happened even while one is an active participant. It may be a difficult skill to learn, but it is an extremely valuable tool, even if only a small percentage of teachers learn how to do it. Our experience suggests that many teachers greatly improve their ability to recall through practice and the right kind of sharing and record-keeping.

Observations. Since our discussions are based almost entirely on the specifics which are reported by the teachers, it is the teachers who establish the priorities. Good observations stimulate spontaneous recall in others and help us all become more sensitive to certain issues. As we become more aware of new relationships and patterns, certain issues emerge which we frequently return to.

Records. Teachers are encouraged to *record* their observations in writing, both to assist the development of their skills in recall *and* as a means of thinking more carefully about their experience. In this sense, we are using writing as a *tool* of thought. The written record is useful to show where we have been, but the writing is important whether or not it is ever shared. In addition, some of the instances presented, others which are the result of spontaneous recall, parts of discussions, and various reflections and speculations find their way into a cumulative record which we call *Notes and Commentary*. We now have over 1,400 single-spaced pages from the different groups, exclusive of much of the writing done directly by teachers, and the quantity of material is increasing at a greater rate, as new groups are formed. In terms of the level of detail and perspective, the material is quite different from what one finds elsewhere.

Time. In education, we are so often in the position of having to start all over again, without the opportunity of building upon the best of what has been achieved in the past or responding adequately to problems which continue to be formidable. So often the insights gained by a few people are lost along with their expertise, which is so hard to share, because we generally don't allow ourselves the years it takes to learn how to talk and how to listen when working in such a complex field. The discussions which we have had, over a long period of time, have brought about a strong change in perspective for many of us, although such a perspective, based as it is upon the personal knowledge of a group of rather special teachers, runs the risk of being increasingly divergent and difficult to communicate.

After six years of successful seminaring, we are convinced that there are strong advantages in sharing specifics with people who are immersed in rich experiencing with children, in bringing different points of view to bear on the same evidence, in making note of the formulations which grow out of our sharing, and using these formulations in order to help us see more clearly. We feel that we have evolved a new way of working for the improvement of education, which other people should know about.

In a sense, we have an experiment within an experiment. We have been studying children's thinking *and* our own, but we have also been studying our process of working together. Occasionally we have departed from

our basic practice of starting with specific instances and talked about how we were doing. The record of some of these discussions, including quotations from teachers and *Notes* writers alike (which have been set in from the margin to identify their source), provides the basis for this review of our work.

1

Observation and Recall

The teachers' seminars depend, first of all, upon the particular instances of children's thinking which teachers report from their own classrooms. At various times there has been some anxiety about presenting those instances for the group. What kinds of things should be reported? Are there some almost magical cases that will illuminate children's thinking for us in revealing ways? What happens when you can't seem to remember very much about what has happened in the course of a day? Is it necessary to set aside special times or to have extra assistance to gather this material? Should you try to pick specific topics or particular children for your focus? These are questions which we continue to ask.

I have been trying to urge, as strongly as I possibly can, that we should not try to observe, but that we should try to *recall* significant things which happened in the course of the day. The effort to observe detracts from one's ability to function. You can't both observe and function well. If you have participated fully, you should be able to regain access to your experiences without having made a conscious effort to observe. Memories will fade very quickly unless they are captured in some way, so it is necessary to stop in the course of a day and list the instances which come to mind. Judging from my own experience, this is apt to be a very painful process at first because it may seem that you have amnesia. How can you possibly spend a morning with children and at the end recall so few things about it? My experience suggests that it can be done, but it takes some determined *training*. The way I proceeded was to make a list of things I could remember in the morning and to write up my notes in the evening. Invariably I would begin to recall more instances as I was expanding my lists into sentences and often they began to take on a new significance once I started to write about them. Having gained access to some of these experiences made it easier to recall the next day. Writing was not just a desirable thing to do if I had the time. It was *essential* in helping develop my skills of retrieval.

A headmistress observed that if she managed to pause at midday to make her "recall list" she could remember quite a lot, but if she waited until the kids had departed in the afternoon it was too late. Too much would have happened and she wouldn't be able to think of any of it.

Much of what a teacher knows is like an iceberg in that most of it lies below the level of consciousness. A teacher can respond appropriately in complex situations because of this underlying knowledge, but it is usually not necessary to state why one action was taken rather than another. Seminaring provides the opportunity to bring some of this knowledge closer to the surface, to share insights, and to sort out one's experience in such a way that awareness is increased. The increased awareness has consequences for practice. These are some of the things we have said to each other about this over the course of several years:

My perceptions changed because of the lists I had made. It is like capturing dreams in a way. When you catch one of the threads you may be able to unravel large parts of it. Other parts may remain blank. You need to relax and just let the ideas come. If you are anxious, lots of things seem to be blocked out or unretrievable.

This kind of recall seems much closer to remembering dreams than it does to what the classroom observer is trying to do in sitting down and saying, "What shall I look at now?" Dreams reveal that our minds are often working on more than one level, that we observe things whose significance is not fully understood at the time and that issues which are really important have a way of surfacing and presenting themselves in our consciousness.

Our minds have the potential for a remarkable kind of recording which is not very well developed in most of us. *Without conscious effort*, they will register things which turn out to be highly significant. Subtleties and nuances of behavior can be captured that would probably be quite difficult to identify in a conscious/analytic mode.

There is a technique for seeing at night which is very important for sailors. It seems quite strange at first, until you become accustomed to it, and then you realize that you are seeing a good deal more than you thought you could. It is rather tricky to learn because it is just the opposite of how you approach seeing in the daylight. Instead of looking right at something, focusing on it, you look away from it and allow your gaze to wander. You have to overcome some rather powerful instincts to be able to do it because, when something is important to you, you want

to go after it, instead of letting it come to you. This may be a useful analogy for thinking about the process of capturing memories from the immediate past. You have to relax, let go, wait for them to come. It is suggestive, perhaps, that the having of good ideas seems to work somewhat along the same lines. You can track them down only so far, and then you have to relinquish control for a while, but be in a receptive mood so that when something good comes along you recognize it.

I am not suggesting that seminar members have undertaken a systematic course of training. Rather each person has gone about it in her/his own way.

I want to develop the skill in myself to be able to tune in momentarily, when a child is doing something, to store it away someplace and then be able to come back to it later. I have a sense that that is *so* important. It is not all that easy.

It is taking the time to *listen*. When kids can figure out what you are going to be receptive to you will almost be getting more material than you know what to do with.

It is hard for me to *clear* my head enough to pick these things up.

I have been trying to learn to be my own tape recorder and I have turned over some of the maintenance functions to my student teacher who runs things while I watch. If I hadn't been coming to these seminars all year I would not have had all the things to lob around in my mind. To say, "Write this down really quickly. There is someone saying something here. What is this child saying to me? What are these children saying to each other and what are the implications of their long-term relationship and the changing of roles with each other?" ... If this group didn't exist, I wouldn't hear the kinds of things I am now hearing in the room and I wouldn't value the fact that I can remember a lot. I hope that my experience can continue to revalidate this approach for other people.

When one is surrounded by the full complexity of a functioning classroom, there is just too much going on to be able to decide right away what is most relevant to record. Six different people might well provide six different accounts of what was happening, from the same observation post, without there being much overlap. Making a conscious choice of what to observe under such circumstances can be very limiting.

I was struck at an early age by the comparison between photographs and memories. At certain times, when I was having some kind of "adventure," I would be thinking about how I would tell someone about it. At times, I would become more interested in the story I was going to tell than the experience itself, and I began to realize that this interest was interfering with the experiencing. My attention was drained away "developing" the story I was going to tell, i.e. translating it into words. There were so many options which one had here that it began to seem dishonest to me.

Picture-taking, with its varieties of angles, exposures, speeds, compositions and textures can be fascinating, but it can only enhance your appreciation of reality up to a certain point. I can still recall my own frame of mind when I first experimented with photography. It was great fun at first, but then I began seeing everything with a frame around it. I found this very annoying because it interfered, after a while, with my seeing what was there. I began realizing that there were only a limited number of "scenes" I was interested in recording with the equipment I had and that the world was a far more varied and interesting place than could be represented by a series of photographs.

When you tell or write about a dream, it is often clear that you are making a translation. Some dreams can be both vivid and ambiguous at the same time. You have a choice in telling about it: how to label people, places. Often sequences are indefinite. It is possible to develop skill in dream-retrieval and reporting to the point that many dreams are clear, relevant, and revealing. While we continue to try for accurate and honest reporting, we are also aware that there are many choice points which must be made on an intuitive and subjective basis.

The sequences of words which we share with each other in weekly seminars represent *translations* of our perceptions of experiences in the classroom. The skill required in creating such translations is probably of crucial importance in making the translation in the other direction, from words to practice. Of course, it is not by words alone that we learn from others, but rather by an active search for meaning and relevance with the same people over an extended period of time. It is not only that the words, when placed on paper, are inadequate in representing the depth and subtlety of perceptions, but that the sense of significance which leads to reorganization and later to action builds up so slowly. One way to learn more rapidly is to discover ways of making better use of other people's heads. We expect that

productive ways of thinking about common experience will increase the perceptual skills of the participants, their ability to make sensitive observations, and their readiness to modify their own practice.

One of the problems we have in explaining the seminars is that it is necessary sometimes to say several things at the same time, lumping together insights, expectations, and accomplishments to project a vision of what is possible.

Fresh thought is transitory. Unless you write it down, record it, or whatever, the thoughts you have at one moment are gone the next. Until you have had a fair amount of experience in thinking, in working on problems, you don't know whether you can get back to earlier thoughts or not. Perhaps you have not developed the skills necessary to recapture and consolidate important insights you once had. It is almost as though you had to label certain things for retrieval at a later time. This labeling, in itself, requires a self-consciousness and an energy which can detract from the primary struggle to understand. We have to operate on several levels simultaneously then: to think, to be aware of our thinking, and to retain the results of our thought. These things do not necessarily fit together automatically. When I start to talk or write about something I don't understand very well, I am not at all sure whether anything intelligible is going to come out. It may be nonsense or it may be profound. If I am really concerned about the results, I can't say anything.

Two things are happening when you are writing. One is that you are making a code for your experience. Words can't represent completely the experience; they are not the experience. There is often a great disparity between the richness and complexity of what we experience and the words we use to talk about that experience. You are, therefore, a bit different for having written, whether or not you ever see it again. Writing then, can help you become more aware of your experience and more sensitive, though I suppose that this is not necessarily so. Perhaps there are satisfactions in writing garbage. The other thing is that you are creating a written record that you can go back to. There is a fair amount that we forget and a certain portion of this *we forget that we have forgotten.*

Why, if we value writing so highly that we spend long hours teaching it to children, do we not, as adults, make better use of it in extending our own thinking?

Anticipating a time when I know I am going to be sitting at the typewriter provokes reflection. I

usually do not know the form something will take until it begins to emerge, so that the experience of writing usually seems to be worthwhile whether anyone else ever sees it or not.... We are often not aware of how much we know until we try to say it. I would extend this same generalization to writing. I find that I often forget what I have said and even what I have written, but that the process seems to keep me in shape for thinking about new things.

I wonder if this is not something that happens to other people as well. Teachers who are extensively busy must have to let a tremendous amount slide off their heads. There is a whole class of occurrences which we should not let slide. Even those which feel fresh and vivid to us at the time or when we talk about them, will be lost, like dreams, unless we can capture them somehow. Unless these things are written down we are likely to forget and *not realize* that we have forgotten.

I think we have abundant evidence by now that it is important for us as teachers to develop our powers of retrieval, without making conscious efforts to translate while we are experiencing, and also to write the thoughts which come after considering fresh evidence from our own experience or from others. I am reminded of this continually as I listen to tapes of the seminars and find that I have failed to consolidate some of the insights or to refocus on topics which are continuing mysteries. I *recognize* the discussions, but could not have *recalled* them without the aid of the tape or my notes. Although I may forget many of the specifics, I do find that I have strong instincts about certain topics being important to pursue.

When I re-read the *Notes* from four years ago I am surprised at what I knew. Now I know it at quite a different level. I love re-reading them and find that I can still hear people's voices.

People vary enormously in their ability to remember what has been said. A teacher's skill is manifested in action, not in talking. It may be that the teachers who are best able to deal with the tremendous complexity of the informal classroom are successful because of their intellectual style which enables them to observe and guide. Their brain activity is very high, but it may be more intuitive than analytic.

I think that the roles you play here and the ones you play as a teacher require two very separate ways of thinking. When you are in the classroom, you can't afford to narrow down your focus the way we can do it here, because if you did the kid who was

getting ready to throw the block would have thrown the block... Your role in the classroom demands a generalized, umbrella-type behavior. I can't remember a time when I wasn't doing two or three things at once... Most of the time it is several things, but not only that. I am not just thinking about those several things, but all the other stuff that is going on as well.

How do you represent that process that happens within a teacher? How do you think about what is happening with you and with the kids, to get a pulse on the whole thing, the whole class and with the child? That is what I would like to learn to do. I would like to be able to share with some people the process, because I feel the teacher is very delicately tuned. Being in the classroom, you have to be taking pulses on about 40 different things simultaneously and then you make decisions which are based on *so much*. I have a lot of trouble explaining to student teachers who are working with me that this thing that I did wasn't just a groovy idea that I came up with for this minute, or that this wasn't just an arbitrary thing, though I could have handled it in 7,000 possible ways, which are all in my repertoire in one way or another. I chose it because of a lot of pieces of information. Maybe there was something else more skilled that I could have done, but what I did wasn't just arbitrary or accidental. In the process of reflecting about what Bill and Sara have written, I remember things in my own teaching that have been very important to me. I just love getting some of these insights back in the form of *Notes*. There are things that I wanted to hold onto that I had forgotten all about and here it is all written down in a form I can keep....

The successful teacher must respond to the totality of the classroom situation which is growing and changing over time. He is in the position of intervening or refraining from action in response to variables in the situation about which he does not have full information and he may not even have isolated them out as separate factors. His feel for the whole situation is derived from assessing the interaction of a great many variables, many of which have not been brought to the level of full consciousness. He must learn to handle this complexity by developing an appropriate grasp of priorities. The theoretician trying to handle the same information becomes overwhelmed. He will have trouble isolating the variables, much less grasping how they interrelate. It may be that it is for this reason that attempts to improve what happens in the classroom which originate in the laboratory don't seem to go very far. The feel for a class of children requires a certain calibration of the senses which takes a period of time

to develop, even for experienced people. One cannot focus and analyze right away because of the complexity involved and also because information is coming in over a period of time. It is rather like learning to see with a new pair of glasses. It takes time, under the best of circumstances, to develop those automatic adjustments and compensations which permit us to construct a world in which we can operate with confidence.

Some of the teachers who could make the strongest contributions tend to be unduly modest about their ability as researchers. They have difficulty talking about what they are doing, even while they are doing the right things easily and with a fine sense of balance. It is clear that they are responding skillfully in the face of enormous complexity and that the level of their intellectual activity is very high. Yet the ways they have of talking about how they are operating reflects but a small amount of the reality of their situations.

One way of being articulate is to deal with very limited aspects of reality. Compare the inarticulate genius of the intuitive classroom teacher with the glib superficiality of the educational school professor. These are unfair stereotypes, perhaps, but how many people could fill both roles? Doing something well and talking about it skillfully seem to be quite different things in the educational profession. We should try to understand these differences and to keep them from getting in the way of progress.

> The nice thing about this group is that the seminar is a continuum: it includes people you feel in touch with even when they are not here and there are issues that you are always coming back to, that have been dealt with by this group in this room for a long time. There is a certain tolerance that has grown up in me for hearing what other teachers have to say about what they do, other sorts of slants on the same sort of things I work on. People have been very receptive to what I have to say, which really helps me want to say things, and to organize them, because that seems the responsible approach when you want people to understand what you are saying. I used to really wander whenever I described anything. This group has helped me point my awareness in a certain direction for a brief time. It has been a relief because it is like pouring sand over a series of ridges, and this group, because of the different tangential ideas and because of the different approaches I feel in the room, provides the idea that what I do has a shape. If I just continued and never had a chance to reflect with people who were receptive, it would go away in the way it seems to for a lot of people. Another thing it provides is a place free of a lot of cynicism about the profession of teaching; there is some raw bulk idealism which I like to be back in touch with. Because there is a basic pattern in how we work,

sitting around and exchanging incidents and brainstorming together, there is very much an "anything goes" idea of what you can bring up here. And then there is a kind of responsible limitation on it, too, which again shapes it. It has helped me a lot in identifying my weak spots in teaching and it has helped me not to be so hard on myself on those weak points, but to creep back courageously and try to do sometning on what was a failure experience the first time around with one group of kids. It has helped me to be more resilient. I think it has really broadened the range of things I will really bother to look at.

The opportunity for exploring tangential ideas is as much a part of what we do as setting responsible limitations. The specifics which have been discussed have helped to sensitize us so that we are now seeing things which were previously unnoticed or unnoted. Thus, in a spirit that often feels playful and light-hearted, it is possible to reorganize our experiences in ways that provide increasing access to memories of significant events.

The instances which are reported come as a result of a tremendous sifting process. It may be that we are refining our sifters so that we are looking at material that few other people have had an opportunity to consider. Some of the things which are said in the seminars may represent apt distillations of experience which are summoned for the first time and may be forgotten unless we have a way of reminding ourselves about what was said. I find my own thinking strongly influenced, not only by the instances we consider, but by the individual insights which are emerging. Other accounts provide us with reaffirmations of previous insights. I continue to find confirmation for one of my assumptions, which is that practice is often ahead of our ability to talk about it.

Although I have been talking as though the main business of each session was to share specific instances of children's thinking with each other, in fact, we have done quite a bit of generalizing. It has seemed to me that a certain amount of generalizing was needed at this stage in our investigations. I can think of a couple of reasons why this may be so. One is that we need a framework for observing. So much happens daily in a class that it would be impossible to summarize it in any adequate way without one. Some of the events may be very high in significance, but we may miss them unless we are sensitized to certain areas. Abundant studies indicate that we *see* within a context of expectations. If visual perception is so strongly determined in this way, it is likely that our perception of events

is also controlled by our expectations. The generalizing which we have done may serve as lenses or filters for further experiencing. Without this reworking of experience, we might not be prepared to observe certain happenings which may be highly significant. A second reason has to do with the sources of our own energy. Commentary flows quite freely because it is a rewarding activity for its own sake. It is exciting to see relationships and to tie things together in new ways. We are stimulated by fresh insights and encouraged to look more closely or to be careful in recording particular instances so that we can think about them later. Creating new formulations, or seeing the relevance of old ones to a particular situation is interesting in its own right, as well as providing a productive way for dealing with experience.

One can become too dominated by one's own theories... it is important to be oneself (in the classroom), to do the many things which need doing without any thought of preparing pictures or accounts for anyone else, and then see if you can recapture some of it. What can be retrieved has sifted its way through your special lenses and filters and has a much higher chance of being significant because of it.

I have noticed in the last two years, being in the seminar, how I have to put "new drawers" in my filing cabinet. When something I am aware of all day doesn't have a place, it just slips by.

Our rationale appears contradictory. We try to stay close to specifics, but find ourselves generalizing and returning to formulations that have arisen from the instances which we have considered together. As we continue, we often recognize familiar problems in new particulars. Sometimes we are pleased to discover that we have found constructive ways of thinking about them. If not, we have another reminder that there are important things to continue wondering about.

Someone in the Tuesday group expressed a feeling that I share: that some of the thoughts that come up seem to be left in suspension, just as dangling bits of conversation seem to go on generating in one's head. This odd but productive process makes me feel that it is still all right if we don't succeed in wrapping things up neatly, although I do look forward to dumping out the box and looking through the treasures.

It is the times that we have been aware of connections being made that reach forward or backward in time, or that connect to experiences referred to by someone else on a different occasion, that the seminars seem most exciting. When we return to subjects we

had discussed before, but on a new level, or in a fresh context, we begin to get a spiraling effect of getting somewhere.

I feel very strongly that the specificness of our discussions has been very beneficial. Our questions on any one instance bring in broader questions of background and atmosphere, but we seem to keep the focus and the depth by concentrating on the specifics. It seemed tight at first, but is freeing in the long run.

A simple form of the message we feel worth sharing is that we start from specifics and keep a written record of what happens. That may be enough to get started. It does seem to work.

The group has trained me to look at things I might not have begun to look at until much later. It has speeded up the seeing process. I find myself this year, more than last, able to look more closely at things that before I might not have seen, but it is something you really have to *learn* to do.

2

The Seminar Structure and Process

For those who may be interested in starting seminars of their own, it may be helpful to review, in outline form, some of the history of this process of working together and some of the guidelines which have evolved.

In the first two years, as mentioned earlier, we recruited teachers, on a completely voluntary basis, through the workshop announcements of the Greater Boston Teachers' Center. Most of the teachers joining the groups had participated in workshops offered through the center, many as leaders. Since then, vacancies have been filled from nominations made by seminar members or from a waiting list which we have kept comprised of people who have inquired.*

Our original aim was to attract particularly experienced and successful teachers. From the first, we found that some of the younger teachers with just a few years experience had so much to contribute that it would have been a mistake to exclude them. Kathleen Raoul's *Notes* from the Brattle seminar indicates that less experienced teachers simply need more detailed help in working on particular problems and that the support group function is especially important for teachers new to the informal classroom. Some of the teachers who started in Kathleen's group have already moved on to other seminars. The seminars continue to attract a number of veteran teachers who have been pioneers in exploring alternatives in classroom organization or curriculum as teachers, Advisors, curriculum specialists, or heads of schools.

Although most seminar members have had support for innovation within their own schools, pressures do exist in some schools which directly influence what is going on in the classroom. The focus we have had on children's thinking has precluded much discussion of organizational and political problems, though there have been several cases in which teachers have moved to other schools when they realized that their interests and talents would be supported elsewhere.

At first, we limited membership in each seminar to no more than 10, which seemed to provide opportunity for free and open discussion at the same time that it was clear that the successful functioning of the group was the responsibility of each of its members. When group size was less than six because of illness,

*The second Cambridge seminar was started when there was a large enough waiting list to justify it. The third Cambridge seminar was started three years ago by Kathleen Racul, who was interested in exploring the same approach with beginning teachers or those with relatively less experience. A fourth Cambridge seminar was started this winter by three former members of the Reservoir seminar when it became clear that there would not be vacancies in the existing seminars. Two years ago, two seminars were started under the auspices of the Brookline Teachers' Center by former Reservoir members, one of which is continuing. Also two years ago, a seminar was started in Los Angeles by Kathe Jervis, one of the original members of the Reservoir seminar. A seminar was also started last year by the Oakland (Calif.) Teachers' Center. Rosemary and David Armington have started a seminar in New Hampshire, as well. These seminars form an informal network, exchanging *Notes and Commentary*.

snowstorms, or other reasons, discussions sometimes seemed less productive. At times, it has seemed that a total membership of 12 would result in an average attendance of 8 or 10 during the winter months. Occasional absences have not seemed to impede the progress of the group as a whole, perhaps because of the *Notes*, which provide a continuing record of each session. Sporadic attention does seem to be a detraction, however. In 1976, two of the Cambridge seminars were combined when it was not clear that there would be enough members for both groups without actively looking for new members. In 1977, the members of that enlarged seminar decided to continue meeting as one group until there were clearly too many people to allow it to function. Group membership has been 19, and attendance has averaged about 15, even though some teachers agreed to come every other week. While I don't consider this to be an ideal size, we have come to look forward to hearing from each of the members. When we proposed breaking into separate groups again, and adding new members from the waiting list, no one wanted to leave.

At first, we insisted that no two teachers be from the same school and continue to believe that this is an important requirement for groups which are just beginning. The basic material for consideration is accounts given by teachers of particular instances of children's thinking, problem-solving, or mental activity of any sort. It is a representation of reality and is accepted as such. Willingness to share such material openly and freely has to be based on mutual trust. Teachers are often vulnerable in sharing such accounts with colleagues from the same school, who may have quite different perceptions of the underlying reality. If they describe some of the peaks of intellectual accomplishment, they could be accused of boasting. If they share their discouragements and perplexity, it could be viewed as weakness. Another reason for having teachers from different schools--urban and suburban, public and private, from varying economic and social settings, and who are teaching children of different ages is that such diversity is stimulating in itself and the contrasts force us all to consider a wide range of possibilities. Unravelling the complexity of a child's learning is easier when we learn to describe the obvious and to question the things which we have assumed to be fixed and self-evident. The presentation of striking counter-examples has often forced us to analyze factors not previously isolated.

The requirement that all discussions begin with specific instances is a severe constraint, but we have found it to be freeing in the long run. Frequently one person's account--written or presented verbally--will trigger the recall of similar instances which had been forgotten or bring forth the sudden awareness of a significance which had not been perceived before. The freshness of our raw material, coming from current classroom events, makes for lively and stimulating

sessions. Many sessions seem to end on a level of high intellectual excitement and considerable humor even though we start off with tired teachers at the end of a long day in the classroom. Nor do we avoid references in our discussions to well-developed theories or bodies of knowledge. But we encourage each other to write out the things we feel we already understand quite well so as to make the best use of our limited time. We have been aware at times of the need to purge ourselves, as it were, of well-worn formulations, so that we won't limit ourselves in considering fresh evidence.

Although strong discipline is needed to stick to this format, there seems to be very little which would be ruled out-of-bounds. Relationships between children, and their perceptions of themselves and each other, are all important aspects of their intellectual activity. Frequently fresh insights come from considering specific examples of our own problem-solving failures or successes. The content for discussion is determined by the cases teachers choose to present and, therefore, reflects their current priorities. Sharing such instances seems to develop perceptions and ability to recall.

The seminars are not courses,* but they are honest means of learning together. Many more problems have been raised than have been solved. In the process, we have all developed a taste for speculating about the things we don't understand very well. There is no attempt to change what a teacher may be doing, though observations, suggestions, and general commentary have been freely exchanged.

*While it is likely that graduate school credit could be granted by neighboring institutions for seminar participation, no members have yet signed up for degree credits.

Occasionally, we have broken our own rule and have spent one or more sessions on general topics such as children's drawing, reading, or dance. Such departures have come after a great many specifics have been shared and often in response to a specific paper which a teacher has written.

In addition to the papers written by teachers, summary notes of each session were made during the first year of meetings for each group. After the first year, it became clear that there was too much richness in the discussions to be captured through *Notes* alone. Since then, we have tape-recorded all sessions. This gives us a much better record and also the option of including actual dialogue in the *Notes and Commentary* which are written from the tapes.

Recording what we have done has freed us to consider new evidence without worrying about systematic coverage or focus, and allows us frequently to return to familiar areas of speculation. But it is a continuing temptation to generalize too soon and it is essential to keep from spending seminar time on a level which is too abstract. Writing, instead of speaking, forces more careful organization, keeps contributions from being lost, and protects others who may be reacting quite differently to new information from being derailed.

Our writing is primarily for the purposes of our own

groups, though we have been sharing with other seminars. One problem is that written records accumulate so fast. Consequently, all of our writing has been left in first draft, unedited form. There has not been time to do otherwise.

If a group is ready to accept the commitment of sticking close to specifics, then leadership does not seem to be much of a problem. Someone has to take responsibility for starting the tape recorder and turning over the cassette at the end of an hour. It is also essential to have at least one person in each group, probably someone who is not currently teaching fulltime, who can make the commitment to summarize and sometimes to extend or refocus what has been discussed. Editing tapes and writing commentary is time-consuming and it has sometimes been necessary to postpone this until summer. Some no-strings support helps with this, but we are essentially self-financed. Institutional support is apt to be too late, inadequate, and/or corrupting. It is probably easier to keep things honest without specific sponsorship.

Our seminars have been meeting over coffee and cookies in the late afternoon, outside of school, for two hours each week during much of the school year.

Among the considerations which have shaped this evolution is the very important assumption that classroom teachers can learn to be productive researchers, even though they may not be accustomed to talking much about what they are doing. Our experience has been that talking becomes much easier as specific issues that are close to everyday experiences are being discussed. Insights and observations that could not be reached from a cold start come easily and spontaneously. It is difficult to hear some things that are being said for the first time. One function of the group has been to remind each of us of the significance of the key examples for grasping new relationships. It may well be that there are some ideas which are only possible to share, in their tenuous and formative stages, with people with whom you have established a baseline of experience and who are prepared to search beyond your words for the deeper significance of your experience.

> We don't even know what we think some of the time, but when you have said something and someone repeats it in a form which makes it clear that they have genuinely heard you it leaves you with the feeling that you have something to build on with them.

It is not surprising to us that the second year is better than the first and that we seem to be able to build on what we have already accomplished.

Another basic premise is that in order to grasp the underlying unity of a child's intellectual growth we must be prepared to look at what is happening in a wide range of their activities. While we have not set out to study curriculum, many of our discussions bring

out comparisons of children's thinking in mathematics, physical education, dance, or whatever. Since seminar members are already skillful practitioners and are well informed about recent innovations, they can quickly learn from each other and continue to probe for better ways of approaching things which are still problems. In an important sense, our approach encompasses both curriculum development and evaluation.

Finally, the question arose when we were talking about starting new seminars, and before we started taping, whether or not the success of the group might depend upon one key person. It hadn't felt this way to me at all. I tried to restrict my role in the first year to listening as carefully as I could and then to reflect back what I thought was important in the *Notes*. Naturally I was much more interested in some things than in others and my memory was selective. I was quite aware of providing filler material to supplement the actual discussions and to accentuate the lines of inquiry which I sensed were most important.

ON KEEPING NOTES

We had talked quite a bit, when we started the seminars, of the responsibility of experimental schools to advertise their mistakes and the willingness to grow out loud. The decision we made, in advance, to share our work with teachers of other seminar groups, if and when others were formed, was very important.

We did not tape-record the discussions during this first year because I felt that we might be inhibited by it; I think it was a mistake. We missed capturing some of the richness of these early discussions, and other groups seem not to have been impeded by beginning taping with their first meeting. On the other hand, not taping forced us to abandon the idea of making a transcription of what took place and established an important role for a commentator and *Notes* writer.

Writing is needed to help with the thinking as well as for sharing. If, indeed, there are ideas which are important to the success of the seminars, it should be possible to share these with other groups via the *Notes*. The *Notes* writers, thus, have a formidable, challenging and time-consuming job. While we don't all follow the same procedures, or feel that we must be consistent from time to time, there are several approaches that have been useful. During the meeting, some of us make notes of ideas we wish to think about more, or of particular things that we wish to get back to. Usually we listen to a tape and make notes on it, including the location of specific discussions we might want to transcribe, a day or so before we start writing. This gives us an opportunity to rethink some of the discussion and to have our own reactions to it. Since we are responding to what is most interesting to us, ideas may occur in

the *Notes* which were not expressed in the seminars, or the discussion may be refocused in a different way than it occurred. Since the primary purpose of the *Notes* is to assist our thinking, the speculative tone is important, and we don't worry too much about contradicting ourselves or about failing to be coherent.

Even when written straight out, without editing or revision, the *Notes* are apt to require an hour or more per page to produce.

We started to keep a Table of Topics and kept it up for the first 150 pages, but then it became unmanageable. The problem is that it is very difficult to make an index of ideas when there are so many interrelationships and you have not settled on a uniform system of labeling. Perhaps the reason that there are so many ways of classifying the material in the *Notes* is that teachers must be able to think wholistically in order to function amidst such complexity. In preparation for a conference of seminar participants in the fall of 1976, some of us agreed to reread all the *Notes*. Several papers were written as a result and experiments were made with indexing.

One of the best ideas we have had for keeping open access to the *Notes* is to copy them on three-hole paper, using both sides. In this way, it is possible to have 700 or more pages in a single three-ring binder. Individuals can make their own indexes of ideas which they may wish to return to. When it seems important to review a particular topic which has been discussed over a period of several years, it is not difficult to get back to it with your own index or with someone else's.

We have discussed various aspects of these problems before, both in the seminars and in writing.*

Excerpts from our discussions would probably make interesting reading for teachers who are concerned with similar problems. Some of the comments of teachers provide apt summaries of years of hard-won experience and might be useful to Advisors who are working with beginning teachers or those who have recently become interested in the less-formal classroom. However, we cannot be optimistic about sharing these materials more widely unless the readers are prepared to go well beyond our words by immersing themselves in a process similar to our own.

Another reason for resisting the temptation to re-order and refine our records at this time is that much of our work is still in process. Scarcely a week goes by that we do not encounter new mysteries or find new manifestations of old problems which we have not yet succeeded in analyzing to our own satisfaction. It is gratifying, when we do discover new ways of thinking about some of the old perplexities of children's lives in school, to find that past discussions illuminate new particulars, but there are still so many insights growing out of new evidence that it

*Quotations, again, are from the *Notes and Commentary* or related papers. They include comments from all three Cambridge groups beginning in 1972, and are from veteran teachers and seminar members, as well as from those who have become seminar members more recently. Some quotations form sequences as they occured during meetings. Others are grouped or presented more or less randomly.

would be premature to try to consolidate our writing now. If our reports are cumbersome, poorly organized, and redundant, then this is a result of a determination to get on with some of the central problems despite limited resources and energy. Our *Notes*, in their present form, contain a good deal of roughage which should not bother those with healthy digestive systems. We are writing to assist our own thinking and to encourage others to write. It may be that the lack of clarity and the convoluted thinking is a characteristic of work-in-progress, which cannot easily be escaped. We know, though, that ideas must be repeated in many different forms and thrown into many combinations before they become a part of our mental equipment. It does not matter if the words are forgotten, for if the ideas are rediscovered in new circumstances, if they help us reorder what we know, then they will find expression in action. People who are seriously interested in facing the full complexity of the problems which confront the classroom teacher every day have to learn how to deal with the ambiguities which are an unavoidable part of this form of inquiry.

We want to have the writing primarily for our use. And we don't want to have any constraints...What we say to each other echoes around and comes back, maybe the next day. I find I think of things over the week. This may be one of the important things that happens. There are connections that have been made after the seminar because of what had been said.

I have some thoughts about the *Notes*. I think they are very valuable and probably something that I will personally keep all my life and read over and over again like a diary or a journal, but I think the thing we have to give to other teachers and other people interested in this is not so much anything from the *Notes*, but simply the idea of meeting in this kind of a group. I think most of us when we were in education school, those of us who bothered to go, found it very unsatisfying. People generally think of education courses as being generally not very relevant, not very helpful. I think of the seminar as being an ongoing school of education, for me at least. It keeps me in touch with other teachers, other ideas, up-to-date. I think it should be expanded to other fields. The idea of meeting--the cross-cultural, the cross-city type of meeting is very interesting.

Can seminar members benefit from reading each other's *Notes* without having met or do they need to meet each other face-to-face? It may depend on how people learn. I discovered rather late in life that my own best style of learning is not "book learning." I can't process some things unless I have a much more

concrete relationship with the material. The visual, auditory content of this group--getting some kind of sense of who people are--helps me understand, and translate, and take back what has happened. When I read specific accounts, clear stories I can really identify with, things that have happened to me before, so that I can imagine myself in a similar position, I can abstract that stuff much faster. Whereas, when I read people who write about Piaget, or read Piaget without the little stories, I have a terrible time figuring out what it is all about. It is far too abstract. Unless I can connect it to a real kid, I have a hard time thinking about it.

We have discussed various problems which have come up in working from tapes.

I have sometimes started with a person's name on what I expected to be a direct quote. There are many choices open in how one translates discussion. How do you punctuate it, for example? It is not the same as dictation, which shapes conversation, in advance, into written form.

Tape is linear. It is like proceeding through a tunnel of words. You can't always remember what is ahead even though you have been through the tunnel twice before. I have sometimes altered the sequencing, not knowing in advance whether it would work or not.

I have sometimes left contradictions side by side without trying for any resolution or identifying the views of any one person. Opposing views are my own as often as not.

There is a lot in the *Notes* that I don't remember hearing though I know, from other parts, that I was here.

Listening to the tapes of our sessions gives one a different view, frequently, than one had while participating. When one is listening to a tape it is possible to concentrate on the speaker's train of thought, whereas in actual discussion one is actively thinking about the fit between someone else's experience and one's own and anticipating relevant contributions. I suppose some of your attention is drained away by anticipating what you might say. I find it strange still that there are many things which I miss from the seminars which I hear on the tape. When you are listening to a tape you don't have to be concerned about getting your own words in edgewise and you can consider what is being said more carefully. The fact that you don't talk back to the tape leads to quite a different orientation!

We talked about assessing the seminar. I frequently find that I don't know at the end of a session whether it was a good one or not. I might have had an off day and wasn't listening very carefully. It is very easy to miss important things which are said, particularly if they are new and don't fit in one of your existing frameworks, or if you are pre-occupied with your *own* point of view. When I listen to the tape I *often* find that it is much better than I thought it was at the time. There is such a richness of experience represented in the seminar members that it is well worth while listening very carefully.

It is *so* different to hear that tape a second time after you have been in the discussion. I still can't explain to myself what happens, but it seems as though you hear things with a new emphasis and suddenly you realize how important a great deal of the material is. I frequently would not have been able to make such an evaluation at the time.

There has been quite a bit of discussion about the requirement we have had of restricting the seminar to teachers from different schools:

Within a single school, there are a fair number of constraints on what can be said. It is hard to share either successes or failures with people whom you are teaching alongside. Teachers feel vulnerable in situations of this sort. They don't want to reveal failures or brag about successes when they are aware that their colleagues are probably making independent assessments of what is happening in their classrooms anyway. I don't know if teachers are tough enough to make this kind of thing work. In our seminars, we accept people's accounts at face value. We do not question perceptions. A colleague seeing the same thing or a similar instance might well say, "That is not the way it happened!" or he could decide he better not say it. This can be very threatening. Discussions cannot be as free or open under these circumstances. Also, it is necessary to be more explicit with people you don't know well. You have to describe your own situation more clearly instead of assuming that others know what it is, otherwise there will be gaps in the understanding. Ferreting out the background conditions which allow certain behaviors in one situation but not in another help us to isolate factors which have not received much attention before.

The school *should* be the unit of research...It seems backwards that teachers should have to travel miles in order to talk with teachers from different schools ...Maybe schools are at the stage of the fifth grade we talked about which had a block about sharing...The

social constraints, the cutting comments, reduce inquisitiveness and wonder...A new environment or new expectations need to be set up so that it is not so difficult to share.

This group has been very supportive for me and it has also helped me focus on things that I might have missed during a time when I was questioning what I had been doing... I don't want to miss this opportunity of meeting with a group of people from a variety of backgrounds. I am particularly interested in the fact that there seems to be a strange universality in what we are hearing.... I am also especially interested in how you intervene and this seems to have more meaning for me when I *don't* know what other people's classes look like.... I find it hard to be so explicit because I am used to people understanding me before I finish my sentence and it is hard to be clear, but I think it is a good exercise. I like to be forced to listen to somebody all the way through without already knowing what they are going to say.

I see the people in my school all the time in a great many different meetings and in different ways and it is a great relief to meet some other people from other places. I know these people pretty well and I like them a lot, but it is interesting to get out where they *aren't* once in a while. And I suspect they feel the same about me or other people.

The objectivity of the group is important to me. It is partly because we are from different places and age groups, partly because there is an *a priori* respect for one another, and partly because we all seem beyond frazzly hassles and able to look at ideas even after tough days.

There is another aspect that has been valuable.... the friendship with people outside my own school system. It is interesting to be in touch with so many other places. You don't feel so lonely. Besides, you find that other people are struggling with the same problems, and sometimes people come up with ways of thinking of, or of solving a problem which are much broader than you would ordinarly find in a single school. There are a lot of assumptions about what "you can't" do that I accept in my own school, which are challenged when you find that there are other people who are doing it.... I don't think anyone has said here, "I don't have time to talk about it now," which is sort of the ending of every conversation I have all day long at school.

One of the most important things that happens is so hard to explain to anyone else and I don't know if I can even say it. You are not only getting to know

a great many other classrooms besides your own in a rather special way, you are also meeting a lot of people, some of whom are like you and some of whom are different. You feel so much broader because you know so much more. I know how so and so runs her classroom and I know what kind of a teacher she is. I know which things about her are like me and which things are different, which of the things that work for her would work for me, and which wouldn't work for me. That is true of every person in the group. What you get is a really intimate view of a lot of other people and a lot of other people's classrooms. How you say that to someone in Texas or California, so that it makes sense, I don't know. That's the main thing. Sharing with other people and learning to know them extremely well is more important than anything we do. I don't know anything about most of you outside this room, but I know a great deal about your teaching in a way I don't know about people I have taught side-by-side with for years.

It is difficult to talk about tacit assumptions even when these can make the difference between success or the lack of it. What do you say, for example, about trust and respect? You won't get very far unless they are present, yet this is something that must grow and cannot be prescribed. Contrasting cases in which things did not go well, though many of the ingredients were the same, are very useful in sensitizing one to certain aspects that would otherwise remain embedded. In doing this, we seem to have discovered an honest way of working together which makes it possible to cultivate one's awareness and to share more openly. We seem to be more aware of some of our expectations and assumptions than we were at the beginning. But the functioning seminar is an organic whole depending on the relationship of its parts, not just its raw components. Quoting participants may still be the best way of revealing aspects of what we do which would be difficult or unprofitable to specify in isolation:

> How can teachers just learn to talk with each other about things that are important? When teachers get together it's so easy just to spend time complaining, but one really needs to be able to get past that to be able to create a climate in which the kind of classroom one believes in *can succeed*. One of the things I have liked about *this* group is that it has not been a place to complain.
>
> We do have disagreements here, without heat, and I do think that is because we know each other very well by now and trust each other. The fact that we come from different places may also be very important.

The basis of our work has been that we are not starting out with answers, but really starting with problems and that takes off a whole lot of pressure. No one is being asked to produce great solutions, to come in with dazzling stories of great successes. It is the things which intrigue us, that amuse us and perplex us, the times when we are left thinking, *"Now there is a lot going on here and I don't think I've caught it all"*--it is that sort of situation, instead of one in which we say, "Well look at what I did today." There is no pressure in this direction and it does a whole lot to establish an atmosphere of sharing.

It is hard to compare us to another group, but a potential pitfall might be for teachers who are not as experienced as we are to turn the sessions into just a mutual support group. This is not a bad thing. In fact, it is very much needed. If you could create a support group for teachers who are moving that would be terrific, but it would be very different from our own group. We have not focused on the more immediate difficulties--problems with individual children or classroom traffic patterns. The issues tend to be more cognitive and are dealt with by standing back and looking.

We all came together expecting to discuss cognition and we did. People who were interested in hyperactive children or in how to run a day care center didn't choose this group.

I don't think we ever thought of this group as a place to find solutions, which is why those things didn't get followed up. You can get off on solutions with everyone having a great one to offer. I really think we have gained something by not getting into solutions because that puts the person with the most experience in the position of being looked to for an answer and that is a mistake.

A lot of our topics are very open, even the questions are only vaguely sketched in. An event will be narrated and then one or two questions will be asked. You don't feel that you have to understand or even quite know what your question is. Just that something has struck you and you're not even sure what. That is a real strength.

I think it has helped each one of us to look harder at our own papers and ideas when the rest of the group questions us. We learn to explain more completely and to find answers personally we hadn't known there. We would have lost that if I had told you to do this or that in your classroom.

Enough of us have taught in more than one situation over a long period of time so that one of us could say, "I am doing something now that I would never have done five years ago." I don't think you have to have a group of people who have taught that long, but it is nice to have the perspective that what is happening today is not the end of the world.

It is hard to communicate what really happens in one of these sessions. What comes out is tied together and augmented by the fact that it is recorded and commented upon. We read it and go back to our classrooms with a different perspective.... I know when I first heard about the seminars and chatted with Bill on the phone about it the year I wasn't able to join, I had a very different idea about what was really happening. Relaxation and support were not among the characteristics I was anticipating. I expected more of a heavy think-tank, competitive kind of thing where we would really be struggling to solve problems and that these solutions would be our central concern. Even after I read the commentaries, before I joined the group, I still had the idea that you people had a pretty good sense for "solutions." At first, I thought I must be really dumb because I wasn't seeing the solutions. I wasn't returning to my classroom with something to do as used to happen with the E.D.C. workshops. I didn't have anything tangible to carry out and not even much that was tangible in my own head. I think that this is really significant, because in America we tend to think of learning as needing to have some sort of specific, identifiable, outcome that you can point to and walk around with. Or, at least, you can put it on paper and carry it with you, and read it, if you can't remember it. That is *not* what happens here, I don't think. What happens here is a much more nebulous changing of behavior and outlooks which don't necessarily all come at the same time.... This is one reason, I think, why people have trouble understanding what we are doing, and what the values are. People ask what we have done and we have to say that we didn't do anything. What has happened to us may still be sitting there waiting to emerge in some new form. Getting comfortable with that and being aware of this aspect of learning is certainly a legitimate expenditure of time. Its a valuable way for teachers, and other human beings, to spend a couple of hours a week.

If I hadn't found out about this group, there would not be that upper area which is possible when you are talking to peers. It is really different when someone who is not so experienced asks me a question. It makes me think when they question me, but they don't have anything to offer beyond the question.

When you just have questions and are supposed to supply the answer, you get caught up in the hang-up of thinking that there are solutions and that you have to think them up all by yourself.

Another part of that is that here I am spending all my day helping children and other adults and what is happening to my own education and my own growth? This is a place where you teach yourself.

One of the main things we have done is to learn how to look at what is going on. When I think back over the last four years, I remember all my anxiety: "My kids are not thinking at all. I can't see anything." I had to overcome a lot of hang-ups in my own education about how to perform. Now it has become so much easier just to open your eyes and see what is happening. I really think that this is a training sort of thing. This needs to be communicated as well, because it does not come about over night. Part of the benefit comes from what has been built up over the years... The thing I would most like to have from other groups now is *specifics*.

The thing that has meant the most to me about this particular group is that we have a form of "show and tell" which is not subject to the value judgments of other people. That opens up for me a sense of being able to explore hypotheses, to think about new ideas, to hear somebody more fully than *any* of the kinds of things I have *ever* experienced, including graduate courses and seminar courses. Faculty meetings and committee work do not support that kind of thinking. It seems to me that one of the things that stifles the growth of teachers is that you are always being confronted with this aspect of being compared, or of having somebody be able to come in and say, "That is good and that is not good," when this isn't the issue at all. If we could communicate the sense that it was legitimate, and indeed extremely valuable, to get teachers to be able to change the way they looked at each other, and the way they shared with each other, then this would be the outcome I would be particularly interested in... It adds up to a completely different way of learning. Learning does not start in September and end in February and it does not culminate in a term paper... These are the criteria by which we are valued and this is what is the matter with the way people tend to look at what happens in schools. We don't look at the right things and one of the reasons we don't look at the right things is that we don't yet know how to illuminate the right things to look at. And there are not enough of us yet to be able to say, "I don't care whether you know how to look at the right things or not, I am still going to do them."

I tell you what I think has helped me when things have piled up on me. When I feel like a hundred elephants are on my head, I tend not to be able to see all the neat things the kids are doing. This group has really helped me be able to get out of it because it makes me need to focus on that to come here and be able to say anything. When you take time away from all the crud on your desk and use all the techniques we have learned in order to *really focus on specifics*, it makes you able to say, "Wow, what Charles did today was unbelievable!" And then you can walk away and say, "I must be doing something right. Maybe I am not so bad." And that has really helped me.

The weekly meetings have been particularly useful in helping me to clarify what I sense, sometimes vaguely, I have been working toward. The sessions have also helped me regularly clear my head of a lot of the small stuff and focus on what I want to be primary concerns, around which the flux of the day in the classroom is built. The potential for discussion in depth, and, often the serious tone about education, is something I look forward to each week and find nowhere else at this time.

There are, at least in my mind, certain qualifications for leadership which make this work possible. Whether or not this is necessarily embodied in one person I am not sure. It is clear to me, in any case, from the variety of types of seminar or discussion-type seminars which I attend, that this particular session has a very, very different kind of quality and a very, very different meaning.

The name of it: *Seminar on Children's Thinking*, didn't leave me with the picture that I would come and get stroked for what I was doing. I expected there would be a bunch of people here who had finished worrying about whether they had handled Joey exactly right and whether they had done everything right that day, but that they would continue to be curious about the why's and wherefore's of Joey and why they behave the way they do with kids and why kids behave the way they do with each other. My assumption was that we would all be past the stage of having our egos so totally involved that we couldn't stand back and look at things... I really came thinking the kind of support I was going to get was intellectual, that other people would be thinking about the same kinds of things and I wouldn't need to pat someone and say, "I know you had a bad day. So did I."

We could have called it: *Seminar on Children's Feelings* and had pretty much the same content. We might have attracted different people, though.

The label pulls you beyond just laying things out to get support. You ask yourself whether what you have to offer is going to be of interest to other people, not whether or not it is something great. There is something valuable in the scariness, almost, of "Children's Thinking"... It tends to weed out certain people.

It is hard to record what you see because it is so complex. When three or four children are involved in some situation, they may well be acting as they do because of what has gone before. How can you report all that is happening without including all the antecedents? Explaining what came before, what it was related to, how it developed or its significance, becomes so distracting that it is easy to lose focus, which is frustrating.

I feel that some of the most interesting things that have happened have come because someone has suddenly seen a connection between what happened in class last week or two weeks ago and what someone else has said just now. Suddenly it comes back with a new meaning or a different meaning.

Many thoughts have been triggered spontaneously that might have seemed unrelated to us at a previous time. One source of energy for us has come from making new connections, of sorting out ideas in ways that are fresh for us. Perhaps they become more available to us in our everyday practice because of the opportunity to do this.

I often see things which I find fascinating, but I often say, "So what?" It may interest me because of something which happened two weeks ago, but I don't have a whole lot of questions about it. I don't get around to writing it down and bringing it in.... Some of these things are very profound. To me they are very meaningful, but I wonder what they would mean to someone who does not know the children?

One way of getting around the tension between practitioners and theoreticians is to find ways in which we, as practitioners, can learn to be our own theoreticians. Here we listen to each other's thoughts and record what we feel is significant. As we do so, we find better ways of thinking about our own experiences. We find that various formulations which we are inventing can serve to tie together experiences which we had not previously related to each other. We sort out what we know in different ways. Is this not our process?

Many of the experiences which are highly significant when seen from a particular point of view might flow

completely over us were we not tuned to certain kinds of behavior. One of the things which may be happening in the seminars is that we are helping each other with the tuning process.

I have been re-impressed many times over the last six years with how easy it is to lose our own best thoughts. When they first emerge, they are so clear and they come across so powerfully that we think we will never forget, but surprisingly we do, or perhaps we only have an intimation of the significance of a new idea. Maybe they are lost because to retain them we have to make readjustments in other things we thought we knew. John Locke wrote: "The thoughts that come often unsought, and as it were, drop into the mind, are the most valuable of any we have, and therefore should be secured, because they seldom return again." The thoughts which come out of our meetings together are emerging from a great richness of experience. One of the functions of the group seems to remind each of us of some of the ideas which have emerged in this way and, in the process, to create new perspectives for ourselves.

The chance to go back and pick up on conversations which were sometimes started several years ago provides some very interesting opportunities for learning, especially when there have been relevant experiences in between. I [illegible] that there really are a number of things which have been said in this room which have become a part of [illegible] permanent mental furniture. We have an opportunity to benefit vicariously from some of the most important of other people's experience. Quite a few of these ideas stay with us, they are not lost, and they become available to us at strange times. As we are dealing with specifics, we frequently make cross connections to other things which have been said. These connections emerge, not from a systematic, logical framework, but rather from a kind of connectedness in our own heads which we may find surprising. In the *Notes*, we have a record of our own problem-solving, as well as that of the children's.

It seems that the effort to organize our thoughts logically sometimes destroys the organic, interwoven quality of experience that can emerge in surprising crossovers and subtleties if we are not forced to shape them in expected patterns but are free to just let them come.

It is my fourteenth year of teaching. This group has really been important. I waited several years to get into it because someone in our school was in it and my appetite was whetted for a long time. It has been important for nourishment. There isn't much nourishment for teachers. We have to learn how to

nourish each other and nourish ourselves. We need time to reflect and think. I feel I keep growing in my capacity as a teacher. I do get physically tired, but I get so interested in it that I just couldn't bear to stop yet. I think a lot of it has to do with being able to step back and reflect with some other people. I find that when I come to this group, no matter how tired and grumpy I am when I come, I leave really full--I eat a lot too!... The food is important. I put food out for my children in school, but rarely does anyone put food out for me, either of an intellectual or of a real variety. One of the interesting things that has been happening is that I have been trying to write.

Last year, I encouraged a group of student teachers I was working with to keep track of their own interests separately from what was happening in the classroom, and in the process I became even more convinced of the importance of pursuing your own interests. When you are doing this, you are able to relate to children when *they* are discovering, and not *force* them to discover what you want them to discover. It is so easy to get into pushing them to do things which you are not even doing for yourself. Fulfilling the need for some kind of "upstairs activity," such as this seminar provides us, is very important. You have to be careful not to forget your own needs.

Teachers need to be in the process of learning themselves in order to be sensitive to kids learning and to respect it, but I find that my own interests have little relationship, *in content*, with what they are doing. I feel I am pursuing my interests all the time when I am with kids, *my interest being their thinking*.

I think I feel less of a need now for the "how to," practical kinds of things, though we need some of this all the time. You never lose that need when you are teaching, I don't think. I pick it out of the things people say. I feel as though I am the child in the group. When I listen to people who have been teaching much longer, it makes me look differently at something which happens the next day. It gives me a "how to," but in a more round-about way.

I agree that the seminars have a definite therapeutic effect. This is my first year at teaching and at times I have felt guilty about bringing up so many problems. I have wondered to myself how other people felt about them. The *Notes* have been very useful. You can bring something up and get feedback right away, but it helps even more to read about it a week later, because I find I don't remember a lot of the things I think I am going to at the time. It *really*

helps to re-read it later.

It helps me to feel confident that I know something when I see it written down.... It takes on a certain value when you realize that someone has taken the time to put it in writing.

Such experiences should tell us something very important about how our own heads function, something which is not a part of our conventional wisdom. We tend to think that the things we have ourselves said or experienced vividly when someone else has been talking are things we will remember and are integrated at the time. It is startling to find that one *doesn't* remember and very helpful to the growth of one's awareness to have such evidence presented periodically. It takes time to sort out new ideas and it may not be sufficient to hear them just once. You may need time to relate it to other things already in your head before it becomes available to you when you need it. Someone may need to say almost the same thing you have said back to you before you understand the implications of it. You may need to hear it in a slightly different form before you grasp its broader significance.

I started in the seminar last year, having felt some successes as a teacher and a lot of frustrations also. I realize that what it did for me last year was to renew my sense of professionalism, a caring about the stuff of my work. What is the difference between a job and a profession? I think there is a very strong tendency for anything you do for a long time to become a job. I guess professionalism has to do with the kind of interest you take in it and the kind of responsibility you take for shaping what you do and how you work things out. For me, being in this group gave me a way to continue feeling that I was functioning as a professional. Although you never seem to outgrow your need for "how-to's," what I gain in working at my own level, really looking at the children and thinking about what they are doing, gives me a much stronger sense of where I am at. That has been very valuable for me and it is what I have been hearing over and over...that one of the things people take away from the group is more of a sense of what it is to be a professional rather than just to have a job... The question of how to *use* this research is a very difficult one. I have trouble reading the *Notes*. I can read those of sessions I have been in, but I have trouble with other *Notes;* I just do. I think they would have to be heavily edited or excerpted for me to get something out of reading them, but I feel that excerpts from other *Notes* could be used in discussion groups, as we have done, using them as new input.

3

Assumptions

Many of the really significant things that can be said about education sound almost self-evident, even when they are contradicted by current practice. Perhaps it is because our vision is encumbered by having experienced such a limited range of possibilities in education ourselves that we fail to anticipate the implications of some of these formulations. Consider, for example, the proposition that optimum intellectual development *requires* the development of a capacity for self-direction. Of course! There doesn't seem to be anything very revolutionary in that. And yet, if one looked carefully at U.S. schools in the 1960s for examples of programs which supported the growth of independence and self-direction, it would have been difficult to find many, even among schools which were highly regarded. It was not until a number of people saw an exemplification of what self-direction could mean in practice in *some* of the British infant schools that the more general recognition, that strongly directed and carefully prescribed programs could place strong limitations on the intellectual growth of children, began to develop. We needed these few schools in England to help us rediscover that education must be an active process, in which people learn to be both self-steering and self-propelling, if there are to be ample opportunities for the development of human potential. The spirit and the style of our teachers' seminars have been influenced by implicit assumptions such as this one, which can be operative whether or not it is ever stated in this form.

ASSUMPTIONS ABOUT LEARNING

Another basic assumption is that we can't study children's thinking without studying our own. In other words, until we learn to explore our own mental processes, treating them with the awe and respect they deserve, we are not going to be in a very good position to appreciate and support those of children. We have been finding evidence that children can develop deep interests and discover ways of exploring them, but this requires that we have interests of our own and know that the feelings which accompany new learning can be intense and may even cause pain or discomfort at times. And, if

the enthusiasm and vitality which accompany fresh thinking are viewed as deviant and disruptive behavior by people who have not had any recent enthusiasms of their own, strong limitations will be placed on what can happen. So we, in the seminars, include specific instances of our own problem-solving--of our failures and our successes--in the accounts which we share with each other in order to help us become more aware of the delicacy and the unpredictability of our own thinking, and to become more sensitive to the same processes in children. Workshops in which teachers have undertaken honest learning projects of their own have been very helpful in exploring problem-solving, whether or not the content is similar to that which will involve children. The seminar experience provides a further opportunity to extend this process.

The experience of the seminar participants, of being more aware of what is happening in their own classrooms and of their own thinking, and of finding effective ways of thinking about some of the problems that they encounter, supports a more optimistic view of our capacities, as well as those of children. Such experiences lead to the expectation that important and often highly significant ideas can come into the mind without any apparent effort when the right preparations have been made, though it does take a special kind of care and attention to translate them into forms in which they will be available when needed. This type of mental activity, in which ideas come spontaneously to mind, might be a good deal more common in all of us if we did not screen against it, if we could find ways of encouraging it and keeping track of the results.

ASSUMPTIONS ABOUT TEACHERS

It is also an assumption that many teachers are engaged in a high level of problem-solving in their everyday interaction with children. They may not think of themselves as "intellectuals" because they are not accustomed to talking in detail about what they do. But, in fact, their level of intellectual activity is very high and their skillful practice depends on well-developed mental coordinations. It is important to listen to such people, to take what they are doing seriously, to support them in their own inquiry, and to find ways of sharing what they have learned with others. Where groups of children are interacting with the guidance and support of a skilled and aware adult, there is a real frontier for the study of the potential for human development. It is a frontier which is poorly explored and it deserves serious attention within its own complex context. We do not view the seminars as being special occasions in which some people are helped to discover what others already know, though that can happen also. Our experience so far leads us to expect that there will

continue to be a high proportion of fresh insight and a growing awareness of the significance of new relationships.

ASSUMPTIONS ABOUT RESPECTING CHILDREN

An assumption which is so embedded in the way we operate that we tend not to think very much about it was commented on by Sarah Hull:

> I have continued to be interested in the relationship between the kind of respect we feel and show for each other in the seminars, through deepening our listening, and the parallel process that goes on in the classroom, in our relationships with children. It occurs to me that *respect for children* is a necessity that all of us would agree on as basic to our philosophy of education, so basic that we don't talk about it even, but there are many different modes of interpreting this value that may differentiate our behavior. I suppose that this is comparable to the many different modes of our expression of respect for other adults, which may involve a good deal more love and attentiveness in some situations than in others.
>
> In dealing with adults, our assumption is generally that others have a right to their own plans, their own ideas and feelings, their own place on the bus or at the table, and our respect often involves simply moving over. Do we assume the same for children?
>
> At a staff meeting, respect may mean listening dutifully and responding appropriately, but without much sense of personal involvement. When one meets someone for the first time, it is impossible *not* to immediately, involuntarily, subconsciously, attribute them with all sorts of characteristics and associations, some of which we are not even aware of, as it is an automatic process. Later, some of these are corroborated, some dispelled in the process of getting to know the person better, but I think it is one of the requirements of respect that we somehow try to hold back in their place these first impressions, in order to allow ourselves to be surprised by the reality of the person as s/he reveals himself, actually, in more specific ways. There is a different quality of paying attention that is needed if one expects that someone else may say something *unexpected*, and I think that this is the key to the quality that has appealed to me most about our seminar communication: We have the habit now of listening to each other with the openness that holds back prejudgments and leaves room for perpetual surprise. We have not been disappointed.

It is the same element, I think, that I have always relished most in working with children: their constant ability to surprise one. But now it occurs to me that it is perhaps not an automatic way of looking at children. If one is overly concerned with organizing activity, or control, or imparting specific information, or procedure, it can be hard to hear the surprising ways that children may react or express their questions. Frequently, I have found that I had a delayed reaction, hearing what a child was really saying only some time after it was said. The teachers I admire the most are the ones who develop the ability to reserve a part of their attention to be alert for unexpected thoughts from a child and to ponder these. Since they often come in a brand new idiom, it can be even harder to catch what s/he is really trying to say, especially amid the hum of other activity. Even in a very small group of children, when one would think one might have the best chance for listening, I have found that the feeling left is that I have missed more than I have heard, often, despite determined efforts. It is by no means easy, but it is rewarding! If you do hear, it may indicate a revision of action or of approach on your part, requiring even more stretching beyond comfortable responses, when one is already stretched.

ASSUMPTIONS ABOUT CONTINUITY

When there is continuity, a whole range of shared assumptions can develop, whether or not they are made explicit. To provide such continuity, it is necessary to plan in terms of a long-range project in which the first half dozen years are only the beginning, though they in turn depend on much that has gone before. To seriously suggest that classroom teachers, who face unusually demanding schedules anyway, can make an important contribution to the understanding of mental functioning sounds absurd unless there are means of keeping track and building upon what is being accomplished. This must take place over an extended period of time. It should not be necessary to lose the insights and practical skills of outstanding teachers and have to start all over again, as seems to be the case so often now. Our work so far shows that it is indeed possible for small groups of teachers to benefit strongly from sharing when it is done under rather special conditions. Whether or not it is possible to consolidate and communicate what they have learned remains to be seen.

When one has an opportunity to talk with the same people over an extended period of time, both on a detailed and on a more general level, communication begins to move on to a different plane. We begin to hear each other rather differently because of the continuity and the familiarity we have developed through the sharing of perceptions of a great many particulars. Continued

dialogue can take place in a more restricted language, in a kind of code, which permits the speculative investigation of ideas that one senses are important, but which would be difficult to discuss in a more formal style or with people who hadn't shared a great deal already. It is possible to build up in your mind the perspective of a colleague, so that the main focus can be placed on exploring fresh connections which may be quite tenuous at first. Establishing a common base line for communication is very important and has been facilitated by many of the practices which we have adopted, particularly our insistence on starting with specifics.

Concentrating on specifics reduces the need to establish or defend formulations which are not directly helpful in understanding the situations that are presented. We have assumed that most people have previously developed orientations, biases, or conclusions, and that it is important to get these out in the open so that they can be useful and not get in the way. *Notes* writers can indulge themselves weekly by including their own formulations in the record. Teachers should be encouraged to do the same so that the category of "precious insights from the past" can be shared, in case they don't find their way into the *Notes*. We have suggested that well-formed ideas, the kind of thing for which you can see several paragraphs ahead, should be shared in writing so they won't be lost. Another reason is that it is easy to become burdened by a sense of tension over previous insights and formulations to the point that it interferes with fresh experiencing. We would like to be able to free ourselves from the common syndrome of repeating old ideas which have lost their utility. Repetition will come often enough without one being aware of it. It need not be cultivated unless it has a pressing relevance in relation to new particulars.

ASSUMPTIONS ABOUT RESEARCH

The process of the seminars as it has been evolving departs from traditional research approaches in several ways. First of all, they concentrate on the problems which individual teachers find most urgent. They present the specifics which enable us, over a period of time, to identify and formulate certain issues which are considered within the context of the total classroom, not in isolation.

Secondly, they begin on a broad and rather diffuse level of analysis. We have discovered that it is often possible to accomplish quite a bit on a very practical level and that a rough and perhaps even crude re-sorting can be undertaken before penetrating more deeply. This may be especially true when the style of many classrooms is becoming less formal. A set of circumstances which combine in ways to allow less than satisfactory results in one setting can sometimes be recognized when other

settings are compared. Alterations in structure or practice may eliminate or greatly alleviate situations which were considered difficult. The force of counter-examples can be more effective than analysis at certain stages.

What does one do, for example, when there is a great deal of competition among children in a class or when there is a quality in their interpersonal relationships which is damaging to many children? It may take time before it is recognized that this need not be the norm, that there are other situations in which children learn to be highly supportive of each other. There are a great many practical and relevant problems in the whole area of interpersonal relationships which tend to recur in a spiral fashion. One teacher may have the problem of modifying the style of neighborhood interaction which has grown up in a crowded area of the city so that children are not always tearing each other down in school. Strong action and rather carefully planned constraints may be necessary for a while. The children may need to use the school as a sanctuary, to have an area of non-interference in their lives for a while before they are ready to interact in more positive ways. In the course of discussing what appears to be an extreme case, one begins to realize that children from more genteel traditions may also be doing a great deal to interfere with each other's learning, but in more subtle ways. We are alerted, through contrast, to certain dimensions of a situation which we might have overlooked and made aware that there are more options than we had originally thought. In comparing classrooms, it has become clear that, while situations are highly variable, there are often effective ways in which teachers can encourage changes in behavior.

The broader perspective which is gained from bringing people together who are teaching in different settings and who are working with children of different ages has been strongly enhancing. The challenge of meeting the demands of everyday reality forces us to learn to shift levels of analysis. As we become more sensitive to the subtleties of children's interaction with each other, observations tend to become more detailed and the sense of alternatives broader. As we grow increasingly confident of our ability to deal with tough problems, or at least of being able to find more productive ways of thinking about them, we are able to focus in different ways. Having shared a great many specifics, and learned to look more closely and with a different perspective on what is happening right now, and being aware of what we might do to influence it, makes it possible for us to appreciate the conditions which will support a growth of empathy in children.

Traditional sources are not excluded. If there are studies in education or psychology of a more formal nature, which shed light on what is happening in the classroom now, they are considered in context. We do feel, however, that it is very important that

formulations be closely related to specifics and they be used only so long as they are helpful in dealing with everyday reality. A report from a group in California, which organized to study Piaget's theories and then shifted to the discussion of specifics coming from the individual classrooms, is suggestive:

> When we changed to being very strict with ourselves about speaking to a specific incident that a teacher brought in about a child in the class--a clear observation about some kind of behavior (backed up with a child's work if that was relevant)--we all went away feeling that we had grown as teachers in our understanding of how we wanted to go back to the classroom and teach the next day. It was ironic because we could all remember workshops and courses we had attended where we'd felt, "I don't want to do your agenda; I am here to get help with what I'm going to be doing tomorrow in my classroom," and yet we were meeting together as a group with a clear statement to each other that we *weren't* expecting to talk about solutions that would help us right away. We were willing not to have any product. We came to the group with no feeling of obligation. You just came and were there and whatever we made happen together happened. And yet we found that focusing on specific observations about a child made more impact on our teaching immediately than most other kinds of talking-type discussions we had participated in before. The discussions were very rich when we looked very carefully at something that had actually happened. The teacher who brought the incident often had her perceptions of it completely turned around by the input from six other people. We always found ourselves going back to look more carefully at that particular child, without a lot of answers, but determined to understand more clearly, to watch more carefully when that kind of situation came up again.

The format of the seminars seems to make it possible to use other people's heads in ways which are seldom possible elsewhere. There is an opportunity to share one's awareness of the moment and also, over the course of time, to reveal the background of our own experiencing which shapes such awareness. Seminar members get to know each other rather well though we don't start out by exchanging biographies. I find myself making a construction, in my mind, of the various classrooms represented based on the specifics which are offered, as well as on individual reactions to these specifics, and the spontaneous recollections and insights which come to the surface. There are continual surprises which force restructurings, but there is also a consistency which makes it possible for one to keep track.*

Such experiences make casual or interrupted conversations about "education" very unrewarding.

*This is a splendid game in itself because we are such varied and diverse people and in sharing our perceptions we reveal our patterns of organization. After several years, we find that we have a legacy of ideas and vicarious experiences from each of the seminar members and we miss them when they are not there.

4

Evaluation

Without labeling what we have been doing "evaluation," it is clear that the seminars provide both a basis for self-appraisal and a means of looking at what is happening in education more generally. The opportunity for reflection provides an incentive for checking up on how one is doing at the same time that it presents alternatives for consideration. There is a strong constructive component in this way of operating, one which can guide further changes. As the seminars continue, we are becoming aware of the complex set of conditions necessary to achieve a climate which will be more supportive of children's growth. There are, therefore, implications for evaluation which go well beyond the seminars themselves, leading to classrooms which are quite different from those we have known. Consider the following comment by a five-year old child, as reported by his teacher:

> You are talking to me because you want to, not because you have to.

How is this remark to be interpreted? Is it just that this happened to be an unusual teacher behaving atypically with a child who was unusually perceptive? Is such behavior a rare thing in school, and if so, why? What contrasts in this child's experience brought such awareness to the surface and what of his willingness to share it? Are other children capable of much greater awareness about interpersonal relationships than we have usually assumed? Suppose we use this observation, and others like it, as a lens to look at other classrooms. What portion of a teacher's time is spent talking to children because of an honest interest as opposed to duty?

It is difficult to describe an atmosphere and an orientation which allows people to look critically and undefensively at the results of their own best efforts. In 1973, I wrote a paper on evaluation with the title, *How Are We Doing?* I was trying to suggest that, if some way could be found to bring to the study of education the spirit and the strategy which has proven successful in sailboat racing, it might solve the problem of evaluation for those schools which were continuing to grow. I became rather carried away by the sailboat racing metaphor in which I had just discovered new

connections and I am afraid that some important points were so obscured by references unfamiliar to most readers that it was not clear that the paper was really meant to be about the evaluation of education. I include here some quotations from this unpublished paper, since the ideas are of central importance to the work of the seminars:

> There are a number of features in the sailboat racing comparison which I feel are suggestive and which may bear upon some of the central problems which teachers face. Teachers must deal with multiple variables, many of which may be poorly defined or even unspecified. While it may be worthwhile to seek out clear, unequivocal indicators, there are hazards in interpreting them. One needs to accept a certain amount of indefiniteness without giving up the struggle to understand. A refined discrimination is needed to sense those differences which count the most, differences which may not be at all obvious to the casual observer. It is usually impossible to have a complete analytic grasp of all factors influencing performance, but it is possible to develop a feeling for when things are going well. Racing people sometimes talk about "being in the groove." You can learn to respond sensitively, to be in tune, even when you can't specify all the variables you are dealing with or their relationship with each other. In racing, as in education, good experiencing tends to increase both humility and tenacity.
>
> *The cumulative effect of skillfully coordinating a great many variables should not be underestimated.*
>
> It is often difficult to communicate important insights by words alone. There remains a factor of personal knowledge which can strongly influence the outcome, even when the essential variables are generally recognized. The struggle to find new formulations and to explore their significance can be productive, even so.
>
> It no longer surprises me to see one classroom in which things are going beautifully, and another, with the same equipment and in a similar setting, in which there are some real problems. One needs to give children considerable scope if they are going to become competent in directing their own activities and in doing this you may run the risk of a disastrous collapse. How do you tell someone how to do it? We do not have, in our common intellectual heritage, strategies for the balancing out of complex variables, some of which have been identified and others which have never even been named. Educators tend to talk about "methods" or "systems" and are misled because of the implication that there are uniform approaches

which can be instituted. A teacher can say, "I tried *it* and *it* didn't work."

A more appropriate strategy, I am suggesting, is for teachers to struggle to create new formulations which are more sensitive in representing their own experiences, to proceed as though these formulations represented significant aspects of reality, and to have the humility and the perspective to recognize when they don't. If we can combine this with a willingness to make hard comparisons and to be tough in our own self-examination, there is a chance that we can overcome the limitations of an academic tradition which has not acknowledged the complex nature of reality and the potential powers of the human mind.

Documentation, in the sense of compiling records of what has been happening, seems to be primarily a defensive activity and of little value to teachers unless unusual ways are found of making use of it. Skillful Advisors have a hard enough time finding productive ways of reflecting back to teachers an image of their situation which will lead them to make changes. Mechanizing the process is not apt to improve it. The best documents on the progress of the British infant schools are the schools themselves. Thousands of people recognized that what had developed there was a significant advance in educational practice, even before the Plowden Report bore witness.

Surely, it is important for the purposes of public relations to have broad measures* that will help protect the reputation of schools that may be attacked along narrow lines. Unless such protection is provided, opportunities for innovation will again be greatly restricted. For schools which have accepted a commitment to work for the best they know and to explore beyond it, a different more searching and critical evaluation is needed.

*See Carini, Engel, Patton, Duckworth, and Ross, Zimiles, and Gerstein in this monograph series.

As we have proceeded with the investigation of children's growth, we have become more aware of new possibilities and the conditions necessary for achieving them. Rather different categories of behavior emerge as indicators of how well things are going: the capacity for sustained involvement, the quality of humor, skill in *finding* problems, readiness to express feelings and to respond to those of others, the capacity and skill of children to help each other with their own inquiries, ability to explore profound existential problems in spontaneous drama are all indicators of a different level of accomplishment. The specific accounts of teachers who have been sharing their observations from their own classrooms over an extended period of time are helping us all to recognize new successes and identify new problems.

Our continuing study of human capacity helps us be more aware of our own limitations and shortcomings. A continuing problem is that we don't seem to be very successful in explaining to others the significance and potential of this way of working. I hope the fact that we haven't succeeded in saying these things very well will not obscure the evidence that there are indeed possibilities for a new style, a new spirit, and a new strategy for working cooperatively for the improvement of educational practices.

In dealing with complex situations in which multiple variables are operating simultaneously, one needs a practical theory of knowledge which will allow one to proceed in the face of uncertainties.

The strategy which some racers find successful is to be intolerant of any shortcomings which might detract in any way from performance at the same time that one is open to fresh experience and speculation in exploring new ways of thinking about what is happening. The result is an interesting combination of looseness and tightness in which a team is working closely together in a style which is both highly cooperative and highly critical.

Were teachers to behave like idealized racing crews they would be actively seeking evidence about how they were doing in order to improve upon their own best efforts. This would be a joyful activity, freely undertaken, for which the rewards are increased competence and increased understanding.

The combination of hard-driving determination, intolerance for anything you know will detract from your speed, and the openness and willingness to speculate, all necessary for success in sailboat racing, make it a very interesting game. One could make a list of factors, some of which you *know* contribute to good performance or the lack of it, and a whole range of others which you think are relevant, and therefore choose to believe, even though you can't offer proof; and there would still be another large category of other variables which you must respond to intuitively, whether or not you have succeeded in isolating them for analysis. You could end up with a long list of variables in which you have varying degrees of confidence and still not have said anything about their interrelationship, which is of crucial importance. Quite often, you don't really know why one boat has done well or poorly. Premature analysis can do more harm than no analysis at all. It is hopeless to try to tell someone what you know, with the expectation that they will be able to make use of it, unless they have had similar experiences.

It is very hard to describe that variation of discipline and looseness of freedom and constraint, which can encourage inspired learning. We catch glimpses

of it from the specifics reported in the seminars. We sense its importance but are too respectful to go chasing after it because we know that there can be no easy recipe to hand out. Children in school present a far greater range of variables and possibilities for interaction than do sailboats in the wind and water.

One way of checking on whether you are right or not is to be particularly mindful of your failures, even to the point of accentuating them. Whether you are looking at sailboat racing or a class of children, the progress of the seminars or one's own errors in problem-solving, being aware of your own mistakes can give you more perspective on the undertakings which are successful.

I recall that many of us who used to teach in independent schools felt that we were doing so because of some ill-defined vision concerning the improvement of education. We had the right to innovate, we thought, while public school teachers were so restricted by the inevitable problems of public institutions that they could not afford to pioneer. Our discoveries, we hoped, could be taken up by schools which could not afford to be as flexible as we were. It didn't work this way, in my experience at least. We didn't develop very much that was worth sharing and there didn't seem to be any format in which people from different settings in education could come together for discussion.* Our ideal was that there would be a continuing interchange between public and private school teachers to share experiences and to begin to disseminate the practices which seemed most successful and relevant. Later, I expected that graduate schools of education would be the natural places for such interchange and cross-fertilization. It didn't work out that way at all. Now that we have teachers from many different schools, public and private, meeting together on a completely voluntary basis, the solution seems so straightforward and obvious that I wonder how we failed to think of it.

Now, too, we have the recent impact on American education of the changes which took place in British infant schools to remind us of how very difficult it is to communicate practical understanding and expertise. Strong interest developed after various visitors reported on what clearly seemed to be a more enlightened and successful form of education for young children. It seemed to be working so easily that some people began drawing up lists of the principal characteristics of the British infant school and then trying to plug them in one by one. I have been close enough to some of these attempts, including those in which English teachers were imported to the U.S., to know that it was not quite that simple. Some factors were perhaps not specified appropriately, or missed completely; crucial relationships were not understood; the relevance of different circumstances, including a different tradition and history, were not taken into account. My impression,

*Teaching can be a lonely profession even when there are people nearby who are doing the same kinds of things. I am grateful to Ed Yeomans for bringing me into contact with Lore Rasmussen in Philadelphia and David Armington in Cleveland, who shared some of my very strong interests in children's thinking and more particularly in mathematics education. The informal network which we established was very important to me at a time when I really didn't know if there was anyone else who could understand what I was trying to say. The year Armington, Tony Kallet and I spent in the same school and were able to talk at great length about the many things we were experiencing was one of the most productive times I can recall. I have reminded myself many times how very important it is for teachers to have an opportunity to talk at length about concerns which are vital to them at the time, even though it may be very difficult to express them in a form which would be meaningful to a larger audience.

based on numerous specifics, is that the first attempts to introduce practices which had taken many years to evolve in certain schools in England were often less than satisfactory.

It seems now that the formulations made about the British infant schools were quite naive and inadequate in helping others, who had quite a different heritage of assumptions and expectations, to recreate what is, in fact, a complex and rather delicately balanced environment for learning. The English children seemed so independent and self-directing in comparison with the highly directed and dependent children who were typical of the same age in the U.S. that it seemed clear that life in school would be much more healthy if everything was freed up. Teachers in the seminars, however, have been saying quite emphatically that this is not the way it works. Unless the teacher is comfortable about being in control, setting definite limits and communicating certain expectations quite clearly, chaos, followed by an unproductive and disagreeable atmosphere, is likely to result. We have the paradox, then, of having an approach which seems to be taking two directions simultaneously: strong control and direction at times, but also much more freedom and choice. The constraints aren't obvious much of the time, but if they were not used occasionally, things would be likely to blow up or fall flat. It is naive to expect that you can provide children with interesting materials, leave them alone, and expect good things to happen.

Michael Polanyi, in his book, *Personal Knowledge*,* tells of a light bulb factory which was imported by Hungary, an exact counterpart of which was producing successful light bulbs on a reliable schedule in Germany. After the factory was set up, it took over a year before it could be made to work. Polanyi emphasizes that there are many industrial processes of this sort which are poorly understood. A few people develop a feeling for how things should go when there is the simultaneous interaction of many variables, but what they know is not written down and there is considerable doubt about whether it could be represented through words and diagrams alone. I don't suppose there will be manuals on light bulb factories which will tell an inexperienced person how to operate one, even when all the parts are set up in working order, any more than there will be a manual on how to set up a well-functioning infant school of the type that has attracted so many admirers. It would indeed be difficult to write an account which would allow others to rediscover some of the best of current practice which is the result of many years of evolution. It is instructive to talk with some of the people who have participated in some of the strong changes which have taken place, though it is clear that great practical skill can exist independently of the ability to talk about what is being done in a convincing manner. The material which *would* be of great interest are the

*Michael Polanyi, Personal Knowledge, The University of Chicago Press, 1958.

discussions which teachers and heads had when they were questioning their own teaching. If the seminars are successful in encouraging continuing growth, there will be a record of particulars, as well as changing perceptions, which may illuminate certain aspects of an evolution that would otherwise remain mysteries.

We have had several discussions about testing in the seminars, but have not talked formally very much about evaluation. We feel that our approach encompasses evaluation for the seminar members and there will be possibilities of contributing beyond our own groups. The following excerpt from the *Notes* suggests one way in which this might be done:

> We seem to be at a point in educational evolution now in which it is important to defend classrooms and schools which are in transition, in order to protect the right to innovate. It is important to do this even while these schools are struggling with tremendous problems which come from a very different set of assumptions about learning. One way in which our seminar groups could help, as we continue to explore the problems which we find most interesting for their own sake, is to document some of the problem-solving that takes place in interpersonal relations and to relate it to other kinds of problem-solving which children are doing. The thing to avoid, I believe, is to have people making the assumption that there are these problems of *adjustment* which get in the way of children's *real* work and that it is worthwhile working on them for that reason. It would be a great help in the movement towards less formal classrooms if we could document the fact, in some classrooms at least, that there is a great deal more problem-solving and that a fair amount of it concerns human interaction. The disclosure of children's awareness about their own learning at an early age, under favorable circumstances, could be quite a revelation in itself. Specific accounts could be quite convincing for many people who have real doubts about the virtues of informal classrooms as opposed to teacher-dominated/uniform instruction approaches. In some people's minds, this is not at all clear now. Undoubtedly there will be sampling techniques coming along to demonstrate what quite a few of us are ready to believe now. If we could enlist teachers in different parts of the country to keep records of some of this problem-solving, it could not be dismissed as a local aberration. I think we can make an important contribution to evaluation by alerting others about the things to look for as teachers and children become more experienced in what has to be a markedly different approach to learning. Many of our colleagues are being forced into defensive positions in the face of a new tide of anxiety. Our evidence could be very constructive without our having to be offensive about it.

5

Projections

Looking back on our own experience, we can see an evolution and a strengthening which may be possible to communicate to some extent. Looking forward, we can see a number of options which are becoming possible because several seminars now exist and are sharing experiences.

Seminar members have been in general agreement that the most important thing for us to share is our approach and our format, though the content is also important. We have had various discussions on this over the years:

> Suppose we try looking ahead five years? There will be other groups in different parts of the country operating the way we are. Will we be able to read their material and benefit vicariously from it? Can we be imaginative enough and sensitive enough to read creatively, to penetrate to the experience behind the words and to have ideas back? Will it be important to know these people at first hand, face-to-face, or can we get to know them by mail as we have come to know each other? *What is the speed limit?*

> Our own proceedings are sometimes disjointed and fragmententary, but none of us is very anxious about it. We are happy to leave a good many things up in the air. If we are able to do this successfully it may mean that we are integrating things on a much broader scale. We are attempting to do something which is much more difficult than has been done before in academic circles, because we are looking at the whole complexity of the classroom without having to divide things up into arbitrary, unrelated categories. Knowing that we will be coming back to old problems relieves the anxiety which can come from being so disjointed.

> One of the most valuable things that has happened to me is that I now think it is O.K. to have a disjointed conversation. I have confidence that it will take some time to make sense and it doesn't make any difference to me that I can't carry it out right now in my satchel. It allows me to look at what is happening with kids and not expect a product right away. I can hold things in my mind and recognize when a

child has been making connections over a span of two months or it may even have been six.

We have to learn how to use secondary concrete material (from other seminars), but when we begin to get it there will be problems, because there will be just so much more to assimilate.

If teachers are going to write, a place and a time have to be made for it. Something has to be given up because there just isn't room for it now. What duties, obligations, chores, would you be willing to give up, provided someone could be found who would take them on?

It is sometimes hard to get *to* reading other *Notes*, but we have greatly enjoyed reading Kathleen's *Notes* and those from the West Coast. There is a sense in which the same issues appear in different contexts and we hear a kind of flow through them which *is* significant and it has a compounding effect. Perhaps the effort to write *Notes* makes some difference here.

It could be that *writing Notes* could qualify people for *reading* other *Notes* better than any other experience. The interests of the *Notes* writers may become particularly strong and broad because they have the opportunity to deal repeatedly with rather unusual and highly significant material.

We have wondered if other people could read our *Notes* and profit vicariously from our discussions. I now suspect it would be quite difficult. A great deal is communicated through emphasis, tone of voice, and style which does not come across on paper, and of course the quotations on paper represent a small portion of what has been said. Also, we have become particularly sensitive to certain issues and have a strong response to certain information which might not trigger much reaction in someone who did not have our background of shared experience.

I continue to think that the words we now have on paper, like the part of an iceberg which is above water, represents but a small part of what we have been accomplishing together. Behind all the words is a lot of extremely good practice. I do not feel that sharing our material with others has a high priority at the present. I do feel that it is most important that we continue to build cumulatively on what we have started. I find, as we return to certain topics in our spiral fashion, that there is still a great deal which seems fresh and challenging.

I expect that we will continue to struggle for coherence in the natural course of our deliberations, but

it does seem unlikely that other teachers will be able to understand *and act upon* what we are sharing with each other unless they have an opportunity themselves to experience what it is like to have fresh ideas and to work towards useful formulations over a period of time. When we talk about how we can act responsibly, knowing that things are bad for many children in school, encouraging the formation of other groups similar to our own still has priority for me.

I assume, without having direct evidence, that what we discuss will be manifested in changes in the classroom. The existence of a number of classrooms which have advanced along certain lines may be the most important contribution which can be made.

The best thing that could happen, from my point of view, is that a few new seminar groups be started every year, *and* that we work out ways in which the deliberations of each group can be shared productively.

It may well be that a good many schools will be moving away from less formal classrooms, having found that, "It doesn't work." There aren't many ways that we could "tell them how to do it." I am much more concerned, however, about what may be increasing restrictions on the right to innovate. We have assumed, perhaps too optimistically, that members of the seminars had the right to innovate in their own classrooms, though it would be surprising if support for innovation did not vary considerably from one school to another and also in different districts. It may well be that certain schools or school districts will be attracting teachers from other schools which once professed an interest in informal classrooms.

I continue to see our seminar groups focusing on everyday instances of children's mental activity in the classroom, and also developing ways in which we can share what we have learned with each other and with others. *Both* aspects of this seem to be pioneer efforts. We recognize that words are but a poor representation of the richness and connectedness in action of the thinking which has taken place and yet we think that the struggle is worthwhile. It is strange that reading and writing are highly valued in our culture, but so little used in extending thought. I consider it a major part of our endeavor to encourage classroom teachers to write if only for themselves and eventually to share, as we are doing, even though it is in a crude and unpolished form.

Suppose we were to make a determined effort to build on the insights which have been emerging--how would

our modes of operation be different? Do we really believe that we can build cumulatively on what has gone before? If so, is our loose and flexible style of organization going to be adequate?

I do find another category of insights, or perhaps leads, which have matured in a group but have not been acted upon yet. There is a range of things which we set aside for the moment, but intend to return to sometime, and these things may sit on the shelf longer than they need to. The time-energy-commitment/ balance may not permit it for a while and yet these may be some of the most important things to tackle. I have sometimes felt that I knew how to solve certain problems. When the same problems have recurred in subsequent seminars, I have thought that I hadn't expressed myself clearly or forcefully enough. I see possibilities within the framework of our operations which really should be explored. Perhaps I haven't been sufficiently persuasive or clear. It may be that I am mistaken, but I would welcome evidence that I am, so that I could abandon old obsessions.

Are we attempting too much? We have talked about the seminar as a support group, a way of sharing "how to" concerns, a means of training our own perceptions, a forum for sharing our particular concerns in accordance with our own priorities, a way of gaining a broader perspective, and a means of communicating with others. All of this would appear hopelessly optimistic unless we view the seminars over a much longer time perspective and include the possibilities for growth. What has been accomplished need not be lost, there *are* ways to make use of the experiences of others and to build on them. If we find effective ways of sharing *Notes* with other groups, the rate of learning for us all may be accelerated. As seminars continue, I will expect more areas of specialization which will become possible only because we have been facing the total complexity of the classroom as practitioners. In the meantime, I believe we can find justification for concentrating on those things which seem most pressing and the ones which interest us the most. I think it will be an indicator to us that we are on the right track if seminars continue to be rewarding for their own sake.

There are, in addition, many highly experienced and articulate teachers in the seminars who have special interests and talents. One way of sharing what they have learned would be to convene a panel discussion on a particular topic such as the transition to informal classrooms, variable constraints, class meetings, etc. Some of these topics have been discussed in seminars already and could be reviewed before the meeting. With

the help of a typist and an editor, the result could be a panel report or a series of such reports.

> I have been hoping, too, that teachers who are on the growing edge of informal classroom exploration would undertake to write of their experiences. There is abundant evidence in the *Notes* that they have valuable experiences to share. If I think of material which would be of most use to teachers of informal classrooms or for "staff development seminars," a collection of specifics and reflections upon those specifics by teachers who have been living through a period of rapid change would be high on the list.

CURRICULUM DEVELOPMENT IN A LARGER CONTEXT

Various aspects of curriculum have been discussed when they were relevant to specific instances which were presented and occasionally we have agreed to concentrate on a particular topic such as drawing or dance. There are a number of experts in subject matter areas among present seminar members. Their insights have been very helpful even when our focus has not been on their field. There is a sense in which curriculum development is already included in the work of the seminars, though we have been looking at it from the perspective of the underlying thinking which is involved and not as separate subjects such as reading, mathematics, science, spelling, etc.

> I would like to find out a little bit about conversations structured around a topic which people decided to talk about and ones where people bring specific instances. We have done both. The things which come up spontaneously have had enormous mileage because there is something very firm which you have to push against in relating what you know to other people's experience. When someone describes something vividly it forces us to take in something that we may not have thought about at all. When you come to work on a *topic*, it is hard not to be entrenched in your own original framework. When you go back into a classroom looking for particular things, it can be quite hard to find them. There have been a few times when we have had a long series of discussions on the same topic when it really accrued and we had something deeper in the end.

The challenge of curriculum development is rather different now in classrooms which have survived the trend towards less formality. Teachers are less interested in assigning units on a compulsory basis, to be undertaken by an entire class at the same time. They have been finding that certain topics or bits of equipment are very useful in new classroom settings where

there is more self-directed activity, but that these materials and approaches often need considerable modification.

THE POSSIBILITIES OF WORKING TOGETHER

It seems to me that the larger problem of school change hasn't altered very much since massive effort was made in this direction some 10 years ago. Teachers *need* to hear from others who are working in different settings. It may be tempting to start a seminar with the staff of one school or a small group of schools, but one should be aware that there are strong positive advantages to be had from avoiding segregation.

Similarly, I have not been able to think of the problems involved in recruiting and training Advisors without being able to count on the work of the seminars. I can't imagine how Advisors can avoid going stale if they must continually start over again with beginning teachers, without having opportunities for continuing their own growth. Advisors could form their own groups to study the process of "advisoring" through the consideration of specifics or could be included in existing research seminars.

In fact, the work of the seminars has been strengthened by bringing together people with different backgrounds of experience and different points of view. We have had productive discussions with teachers of preschool children through high school age, all in the same group. Within the set of constraints we have adopted, there seems to be ample opportunity to benefit from their experiences and reactions. It has seemed important to have a majority of people who were actively working with children and who could contribute first-hand accounts from their own recent experiences, but the perspective of others who are somewhat removed from the immediate classroom scene has been useful also. I can imagine seminars in the future including people with interests in learning who happen to be physicists, artists, architects, poets, or whatever. Their perspective on some of the issues which have developed and their special skills in dealing with various kinds of complexity could be enhancing.

There has been some interest in starting seminar groups of parents, though we have not yet received specific reports on this. Many of the seminar members are parents as well as teachers. Therefore, we have been able to consider out-of-school specifics, as well as to have important sources of illumination on certain problems. A study of children's thinking outside of school by a group of parents might be extremely effective in furnishing a different kind of information to teachers, as well as in

suggesting other varieties of support and constraint. Combinations of teachers and parents, either on a regular basis or for special topics, might be productive for a variety of reasons. Teachers often find it extremely difficult to communicate what they are doing and parents often don't know what is happening unless they have both the time and the opportunity for extensive visiting. As experience with seminaring builds, more opportunity for teacher/parent collaboration should open up. There are many classrooms which are now quite different from ones which have existed before and they are continuing to evolve. If their growth is to be sustained, the understanding, support, and assistance with specifics of parents will be needed. When these groups are formed, I strongly recommend they follow the practice of starting from specifics and of keeping written notes to help them in thinking about what is happening and to make it possible for them to share with other groups.

THE LONG PERSPECTIVE

Ten years ago, there seemed to be grounds for considerable optimism about the possibility that constructive changes in elementary education would take place. Some of our schools seemed surprisingly receptive to information from abroad. Practices which were developed in certain infant schools over a period of many years provided us with a good counter-example useful in understanding what was wrong with the direction of our own schools. Other factors such as the work of various curriculum projects, the Follow Through program, the creation of advisories and teachers' centers, and the establishment of alternative schools all seemed to be contributing to an atmosphere supportive of innovation and the spread of more enlightened practices. But this was only a beginning with younger children, and even so, the actual practice was far more difficult to import than most people anticipated. Indeed, the tacit assumption seemed to be that there was nothing really new to learn. Missing in all of this was the means whereby teachers with special insights and skills could share the deeper understanding of learning which was growing out of their everyday experience of working with children in settings which were quite new.

Similarly, Advisors, drawn from the ranks of particularly able teachers, could provide invaluable assistance in the early stages of change, but they were forever doomed to starting over again from the beginning unless they had an opportunity to continue their own exploratory work with children, either directly or vicariously, which enabled them to learn things which no one was teaching in the first place.

The problem, as it turned out, is by no means one of spreading around the best that is known. The dissemination of information serves little purpose if, in

the environment that exists, people's minds aren't receptive to considering what they're being shown.

The start of teachers' seminars on children's thinking is an important beginning in this direction. With a little imagination, we can summon a vision of a time when more teachers will have trust and understanding for their own talents and be able to participate in a new professionalism based on the serious long-range study of children's thinking. It will be necessary to find unusual forms of support for such teachers, but our own experience demonstrates that a start can be made on a slender basis and that the intrinsic rewards are sufficient to overcome many difficulties.

Also available as part of the North Dakota Study Group on Evaluation series:

African Primary Science Program: An Evaluation ($5.00) by Eleanor Duckworth

Children's Language and Thinking: A Report of Work-in-Progress by Edith H. E. Churchill and Joseph N. Petner, Jr.

First California Conference on Educational Evaluation and Public Policy, 1976 Edited by Nick Rayder

A View of Power: Four Essays on The National Assessment of Educational Progress by Paul Olson

Developing Hypotheses About Classrooms from Teachers' Practical Constructs by John Elliott

Children's Interactions in Traditional and Nontraditional Classrooms by Sylvia Ross, Herbert Zimiles and David Gerstein

Psychological Effects of Open Classroom Teaching on Primary School Children: A Review of the Research by Robert A. Horwitz

Special Education: The Meeting of Differences by Steven D. Harlow

A Handbook on Documentation by Brenda Engel

Informal Evaluation by Brenda Engel

An Open Education Perspective on Evaluation by George E. Hein

Alternative Evaluation Research Paradigm by Michael Quinn Patton

Observation and Description: An Alternative Methodology for the Investigation of Human Phenomena by Patricia F. Carini

The Word and the Thing: Ways of Seeing the Teacher by Ann Cook and Herb Mack

Teacher Curriculum Work Center: A Descriptive Study by Sharon Feiman

Testing and the Testing Industry: A Third View by John Williams

Single copies $2.00 (unless otherwise indicated) plus 50¢ handling charge, from North Dakota Study Group, Box 8039, University of North Dakota, Grand Forks, North Dakota 58202